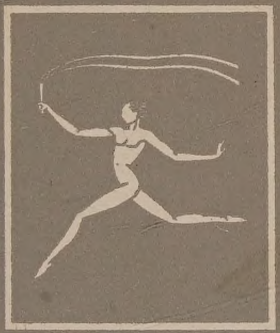
AN OUTLINE OF ABNORMAL PSYCHOLOGY

HERBERT GLASER



AN OUTLINE OF ABNORMAL PSYCHOLOGY

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AN OUTLINE OF ABNORMAL PSYCHOLOGY

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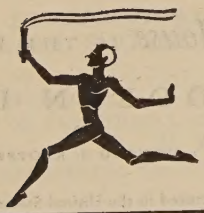

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AN OUTLINE OF ABNORMAL PSYCHOLOGY

EDITOR'S INTRODUCTION

Abnormal Psychology has three main divisions. The first is the study of mental abnormality in immediate relation to disturbances in the body (especially in the brain). The second is the study of patients suffering from more or less serious mental disease, whose condition necessitates not so much an emphasis upon bodily factors as a careful examination of their background and the psychological factors which underlie their trouble. Naturally there lies between these two a large debatable territory in which sometimes a physical and sometimes a psychological approach seems required. We may, if we wish, disregard the distinction, and call the region covered by the first two provinces by the name of *psychiatry* ("healing of the mind").

Our third province includes the study of a great variety of normal or almost-normal phenomena which throw light upon the abnormal, and the thousand transitional states between the definitely normal and the definitely abnormal. A most valuable aspect of this third department is the study of the mental life of children, with a view to understanding the factors which make for subsequent normality or abnormality. The stimulus to such work seems to have come in about equal measure from psychiatry and from child-study. To-day many psychologists are at work in this field. Not that there is any corner of psychology which is really unillumined by medical knowledge, nor that the psychologist should jealously guard any special material as his

own—for the acrimony between psychologists and psychiatrists is being rapidly dispelled. But the close relation of "abnormal" mental processes to mental processes found every day in the "normal" makes it possible for the psychologist to work with special effectiveness upon this group of problems.

"Abnormal Psychology," as taught in colleges, frequently means a survey of the entire field of mental abnormality. It has attempted to cover all three of the subdivisions just described. I imagine, however, that the number of readers who really desire a systematic survey of the medical aspects of the field, including the study of brain disease, will be relatively few; and that these readers will naturally prefer to get the material from a textbook of psychiatry (several excellent treatises serving this purpose are available). Another limitation of our field is dictated by the fact that the psychoanalytic approach to abnormal psychology has already been presented in Dr. Van Teslaar's *Outline of Psychoanalysis* in the Modern Library. The work of the psychoanalyst will therefore not be considered except for a certain amount of material showing the relation of psychoanalytic concepts to other concepts current in contemporary psychology.

The chief purposes of this volume, then, are first, to give the reader an introduction to some common forms of mental disorder which are understandable in terms of psychological principles, and second, to indicate some of the paths which lead from the normal to the abnormal, and—fortunately—often lead back again to the normal.

These purposes will best be fulfilled if we first undertake a brief sketch of the history of abnormal psychology and then proceed to a survey of the commonest forms of mental disorder.

A SKETCH OF THE HISTORY OF ABNORMAL PSYCHOLOGY

Most of the types of abnormality known to us seem to have been present since the dawn of history, and are found

among all races of men. Hysteria, senile dementia, and epilepsy, for example, are not only familiar to the traveler among primitive peoples, but are found to play an important part in their social economy. A familiar instance is the important part played by hysteria and epilepsy in the constitution of "medicine-men" and in many other aspects of primitive religion.

The ancients tended on the whole to regard mental abnormality as of supernatural origin, just as, presumably, their prehistoric ancestors had done. The study of mental disorders throughout history may be said, in a sense, to consist chiefly in the gradual freeing of man's psychological concepts from this note of the supernatural, and the gradual recognition of the working value of a naturalistic interpretation. The earliest great figure in such a trend is Hippocrates (5th century B.C.), who protested against calling epilepsy the "sacred" disease, maintaining that mental disorder is really a *physical* disease, like other diseases. He went further and insisted that mental disease had a special locus, namely, the brain, and that it could be regulated to some extent by climatic and dietetic factors, which would control the brain functions. Again, he is important as the first great advocate of the view that the mentally abnormal differ from the normal not by any hard and fast line, but through a series of gradations. He speaks, for example, of the "mildly raving" as those who are, so to speak, troubled by a *degree of ravingness*. Much of his work was subject to a confusion very general in classical medicine produced by a firm belief in "humors" in the blood, vague substances closely correlated with the notion of the four fundamental elements of earth, air, fire and water. Most of Hippocrates' practical prescriptions for the amelioration of mental disorder are, in fact, of very slight consequence.

Greek medicine reached its height after the decline of the highest period of civilization in Greece itself. In fact, it was at Alexandria, in the time of the later Roman Republic and the early Empire, that all the sciences, and medicine in particular, reached their greatest height in

antiquity. Some of the physiologists of Alexandria conducted serious scientific work on the functions of nerves. Writings on mental abnormality were produced in fair number. The climax of this medical advance is found in the work of Galen (about A.D. 200), who became the great master in the world of medicine for well over a thousand years. That Galen was something more than an anatomist, as well as something more than a theorist, is shown by the following story: A young woman, suffering from a severe nervous upset, for which no obvious physical cause was to be found, was interviewed by Galen. He repeated to her a list of names, with his finger on her pulse. When the name of a certain popular actor was mentioned, the pulse displayed a very sudden acceleration; and the same occurred whenever he returned to the name. The poor girl was simply suffering from a love which she could not admit, and a simple human solution was offered.

Partly the advent of Christianity, but even more clearly the general weakening of Greco-Roman civilization and the invasion of the barbaric tribes in the period vaguely known as the "dark ages," led to a complete cessation of original work in all the sciences. During this period the *demonic* interpretation of nervous disorders came to the fore. As we have seen, the supernatural was always easy to invoke where mind or soul was regarded as something floating about, ready to work weal or woe to individual human beings. With the development of the Christian concept of a personal devil, or rather a plurality of devils, it was easy to think of hysteria, epilepsy and so on, as the work of such evil ones. The New Testament accounts of the casting out of demons are types from which the psychiatry of the dark ages did not greatly deviate.

Medieval Europe was frequently subject to epidemics of hysterical excitement, usually of a religious pattern, even monks and nuns being subject to the "devil sickness," and other violent disturbances. The rôle of suggestion being entirely unknown, some hysteric might easily throw a whole convent into convulsions, each of the individuals believing himself to be a victim of the Evil One. It has

frequently been suggested that witchcraft was in large part a manifestation of hysteria.

The revival of medicine in the sixteenth century led with extraordinary rapidity to the revival of the Hippocratic approach. Burton's *Anatomy of Melancholy* (1621) was the first important, systematic work dealing with the varieties of insanity. A strange mixture of naturalism and supernaturalism appears in the volume, but, in general, the descriptions of the types of disorder are easily recognizable as essentially accurate.

The seventeenth century made great progress, culminating in the extraordinary book, *Processus Integri,* by Sydenham (1692). Here appeared a variety of clear and objective descriptions of mental disorders, in a spirit quite as naturalistic as that of the contemporary work of Newton.

We have come, then, to a period in which mental disorders are being *classified;* that is, a period in which men no longer think of abnormality as constituting merely a group of human misfortunes, but as a number of specific, recognizable types of deviation from normal personality.

The eighteenth century continued the task of clear classification, the closing years of the century marking several important events. Pinel, as head of the great institution for the insane at Paris, not only made his mark as a classifier of mental disease, but clearly introduced an anatomical and physiological conception of such diseases. This went hand in hand with a humanitarian outlook. "The insane," thought Pinel, "are not wicked. They are sick." He struck off the chains which bound many of the miserable inmates of the institution, and took a leading part in a great campaign (already under way) for the creation of a public conscience which would assume a sense of responsibility for these sufferers. Several other Frenchmen in the last decade of the eighteenth century contributed their part toward clearly outlining this anatomical or physiological conception of mental disorder.

The nineteenth century continued the work of describing and classifying the myriad forms of personality-disturbance, Germany taking a leading part. Griesinger, in the

middle of the century, showed the way towards a more elaborate subdivision of types of mental disease, and in the years which followed him, some writers classified as many as two or three hundred mental disorders, taking account of minute differences between cases. Toward the end of the century, the pendulum began to swing back towards the use of a smaller number of main categories, until Kraepelin prepared a classification with about twenty main types, which, though undergoing revisions, is still in general use.

Research upon the nervous system also began about 1850 to yield results which, for the first time, made possible a detailed statement of relations between brain disease and mental disease. The outline description, for example, of the disease known as dementia paralytica ("general paresis" or, colloquially, "softening of the brain") became available. During the remainder of the century, microscopic studies of the brain gave a variety of indications as to the causes of mental disorder in old age, in various toxic and traumatic conditions, in certain forms of epilepsy, and so on.

The reader will have noted that not a word has as yet been said about the work contributed to this department by psychologists. It is a rather remarkable fact that abnormal psychology had been entirely the business of physicians, from classical Greece well into the nineteenth century. Psychology had been pursuing its independent course, few psychologists seriously concerning themselves with any of the problems which lay outside the consideration of the normal adult intelligence. Even the beginnings of the modern *psychological approach* to mental disease came in the writings of a physician, Moreau de Tours, who, in the middle of the century, considered mental disorder as subject to certain definite psychological laws and as closely related to the phenomena of everyday normal mental life.

French neurologists and psychiatrists in the third quarter of the century outlined the theory of suggestion, and showed the relation of suggestibility to hysteria. At Paris, Charcot and his followers showed that certain mental func-

tions are capable of being carried on independent of others, that is, the mind may be *split* or dissociated. From this it results that certain acts may be carried out unconsciously. Somnambulism and catalepsy were, for example, seen to be capable of construction in terms of such dissociation. The work of Janet (see page 151 of this volume) is typical of the outlook of the French school.

An almost purely psychological interpretation of mental disorders began in the work of Breuer and Freud (1880) and has continued in the work of Freud and his followers since that period. The fundamental hypotheses of his psychoanalytical school may be summarized in a few words: Conflict between motives results in the suppression or ejection of some of our motives or wishes from the field of consciousness. These suppressed wishes, however, continue to be active even when outside of consciousness, and in struggling to find expression, cause not only the symptoms of hysteria and other mental disorders, but dreams and many of the half-explained or unexplained phenomena of everyday life.

Another distinctly psychological school is that of the contemporary Russian physiologist, Bekhterev. His fundamental conception is supported by the experimental work of Pavlov, who investigated in the opening years of the twentieth century a principle which is believed fundamental in all adjustments to life. When a dog was stimulated at the same time by meat powder in the mouth and the ringing of a bell nearby, this being repeated a number of times, the bell *alone* was found in time capable of eliciting the normal flow of saliva. The reflex flow of saliva had been "conditioned," and this was known as the "conditioned reflex." Now, a great many of the phenomena of mental abnormality are obviously of this general pattern. A girl finds, for example, that the sound of church bells throws her into a miserable state.[1] She is unable to name any reason for this. A careful study of the history of the case shows that her mother had been operated upon at the time of the ringing of church bells. Though she did not con-

[1] M. Prince, *The Unconscious.*

sciously remember it, the worry over the operation and the church bells had coincided in time, and the church bells were sufficient to throw her into distress of the same type occasioned by the original situation. Known under various names, this mechanism appears to be a valid psychological clue to a great many abnormalities and "queernesses" of human personality. A somewhat similar psychological conception is expressed by Dr. H. L. Hollingworth (on page 158 of this volume), whose view seems, however, more comprehensive, and hence more adequate, than the conditioned reflex theory in its simplest form.

Remembering, then, that psychologists have only recently turned their attention to the abnormal, we may glance for a moment at the development of the science of psychology within the last fifty years.

Psychology, from Aristotle till well into the nineteenth century, was "mental philosophy." In spite of the fact that many psychologists made keen observations on human nature, most of their work was of a speculative type, or, at best, of a crudely descriptive character, without clear insight into psychological laws. The biological sciences had, nevertheless, begun in the sixteenth century to make great advances and by the middle of the nineteenth century the exact methods of biology began to influence psychology profoundly. Darwin and other students of evolution showed psychologists the value of studying the fundamental laws governing the behavior of organisms in relation to their environment. The formal study of certain intellectual functions was seen to be in need of supplement through a more adequate study of the instinctive and emotional life, and of the interrelations between mental and physical processes. Students of experimental physiology, especially in Germany, began in the same period to study systematically the functions of various parts of the body which are intimately related to mental processes, such as the sense-organs and the nervous system. In order, for example, to understand how we *see,* it is necessary to know not only how the eye functions, but also just what the mental processes consist of. To know why people differ in the

speed of their muscular reactions it was necessary to discover the nature of the various mental processes involved in making the reaction. So, in 1879, the experimental study of these psychological problems at last received the dignity of "a local habitation and a name," and *experimental psychology* came into existence. Within a few years the scope of psychological investigation was greatly enlarged by the beginning of systematic experimental study of learning and memory, association and thought. New fields of psychology began to be opened up; child psychology and social psychology, for example, began to be systematically studied about 1900. "Abnormal psychology," as a union of psychiatry and experimental psychology, began in the work of Kraepelin, who, in the closing years of the last century, not only made systematic comparison of normal with abnormal mental processes, but *experimentally* studied mental abnormalities produced by fatigue, hunger, drugs, etc., under scientifically controlled conditions. The course of the present century has witnessed the gradual extension of the methods of experimental psychology in the study of the abnormal.

Child psychology, however, seems to have helped even more. The careful study of the personality development of children under the relatively scientific conditions of the nursery school (and even in some cases of the psychological laboratory) has supplemented the mass of material being contributed by psychiatrists, who are constantly seeking to understand and to help "problem children." The recognition that a very large proportion of adult maladjustment and unhappiness results from unfortunate experiences and "twists" in childhood has recently made the psychiatrist and the child psychologist eager to borrow as much as they can from one another. The remarkably clear and valuable results obtained through such coöperation and the likelihood that the study of childhood may actually prevent a large amount of adult abnormality have made it imperative to include in this volume a number of typical studies of "abnormal psychology" in children. A few instances of juvenile delinquency are added. Delinquency illustrates

even more clearly than does insanity the importance of wholesome childhood. If one were asked to name the chief characteristic of contemporary "abnormal psychology," the best answer would probably be "the attempt to get back to the origins of abnormality." This involves the study of heredity; but even more the study of the experiences of childhood.

A BRIEF DESCRIPTION OF THE CHIEF ABNORMAL TYPES

The first type of mental abnormality to consider is that in which there is simply a general deficiency in *intelligence*, without any twist or distortion of personality. These "mentally defective" or "feeble-minded" (or "half-witted") individuals do not in any sense constitute a separate species sharply divided from the normal. On the contrary, everything we know about them indicates that intelligence is a matter of degree, and that there are all degrees or grades, reaching from the most brilliant genius to the most absolute idiot. Intelligence is, in fact, "distributed" in much the same way as stature or most other physical traits. This means that there are more people at the average than there are at a point just above or just below it; and as we go further and further away from the average, the number of individuals representing a given degree of the trait tends to thin out. If this is the case, it will be seen at once that the point at which we decide to draw a line, marking off the feeble-minded from the normal, is a purely arbitrary one. Often this line is drawn, for convenience, at a point below which the individual is incapable of taking care of himself and earning a living without supervision. The psychologist usually draws his line in a somewhat different way. He speaks in terms of an *intelligence quotient*. In the case of a growing child, this measures the rate at which the child's mind is growing. If the child is six years old, and can perform the mental tasks which a child of six can ordinarily perform, but no more, he is said to have an I. Q. of 1.00. If, on the other hand, he is eight years old,

but can only do the tasks of a six-year-old, his I. Q. is then 6 divided by 8, or .75. The I. Q., of course, may run well above 1.00, in the case of children who can do tasks beyond their years. Now, by feeble-minded, the psychologist ordinarily means *having I. Q. of less than .70.* The usefulness of this conception lies in the fact that a child who starts out with an I. Q., let us say, of .50 (that is, a child whose mental growth is about half as fast as that of the average child) remains with an I. Q. of about .50 throughout the growth period. Taking the period of intellectual maturity as somewhere in the teens (data do not yet show clearly just where intellectual growth,—aside from the mere accumulation of experience,—ceases), we may say that this particular child, when adult, will certainly never have the intelligence of a ten-year-old child. This principle of the "constancy of the I. Q." does not hold, of course, for children who suffer a genuine "arrest of development," as after infantile paralysis or other disorders which sometimes affect the growth of the brain. Moreover, cases have been recorded in which a sudden increase in the I. Q. has resulted from a very favorable and stimulating environment. The I. Q. may vary from one examination to the next as a result of emotional habits which affect concentration, interest, etc. In general, however, the I. Q. seems to be pretty stable, and superior environment merely makes the difference, let us say, between a rather well-informed stupid person and a poorly informed stupid person.

In contrast, then, to the idea of the feeble-minded as a distinct species, everything indicates that intelligence varies in degree over a very wide range, and that the line of division between dull normal people and relatively bright feeble-minded people is simply a matter of convenience. In the same way, the classification of the various grades or levels of mental defect is purely arbitrary. We usually speak of *morons* as those with an I. Q. of from .70 to .50; imbeciles, those with an I. Q. of from .50 to .25; and idiots, those with an I. Q. of .25 to 0. This is applicable, of course, both to adults and to children, but, on account of the fair constancy of the I. Q. in most individuals, we may with fair

safety predict that a mentally defective child of a given age will have the same *relative* defect throughout the growth period, and will, at maturity, possess about the same *fraction* of normal mentality that he had at the time of the original measurement.

But what *are* these levels, in terms of what they *can do?* Remembering that an I. Q. of, let us say, .75, means three-quarters of normal intelligence, we should expect of a person with an I. Q. of .75, at a chronological age of 10, that he would have a *mental age* of 7½. In other words, he can, roughly speaking, do what a normal average child of seven and one-half years could do. In the same way, a child of six, with an I. Q. of .50, can in general do what an average normal child of three can do.

There are, of course, some differences between the normal and the feeble-minded besides these more obvious ones. For example, a mentally defective man of thirty, whose intelligence has not advanced above the mental age of six, differs from an average six-year-old boy in various ways. He lacks many of the interests and enthusiasms of the six-year-old child, and, on the other hand, has many interests which the child lacks. Further, he has had thirty years of experience, and by brute repetition has learned a great deal which the six-year-old cannot master. Perhaps as important as any of these differences is the fact that he has the emotional and instinctive life of an adult man, and from this fact follow a great variety of social consequences which defective intelligence, as such, would not entail.

Penetrating a little more closely, we may now ask, if the thirty-year-old mentally defective adult and the six-year-old normal child differ so greatly, what it is that they really have in common. We have said the "general intelligence." Yes, but general intelligence is a loose term which probably covers many separate functions. Actually, the most satisfactory single criterion of general intelligence seems to be the *ability to learn,* and when we say that these two hypothetical individuals are equal in intelligence, we mean that in a situation equally novel to both of them, they display about the same general learning ability. An experiment by

Woodrow offers very suggestive evidence that the *level of intelligence* of any given normal or feeble-minded individual is simply the *learning ability* or capacity of that individual.

We must constantly bear in mind that with relatively few exceptions, the feeble-minded are not, in the ordinary sense of the word, *abnormal* at all. They are simply persons of incomplete intellectual growth. In some respects they are, in fact, like children. Depending on the degree of defect, adult feeble-minded persons resemble children at various ages, while feeble-minded children resemble younger children of normal intelligence. Every one will recall the familiar case of a ten-year-old boy in a grade with seven-year-old children, managing somehow or other to struggle along with the work, and resenting the necessity of playing with younger children, just as any normal person would resent a similar unfavorable classification. The famous cretin at the Children's Hospital in New York appears year by year to the groups of students who go to see the children at the hospital, and is generally taken for a nice little boy. Bennie has, in fact, a mental age of five, but he passed his fiftieth birthday some time ago. (The cretin's small stature makes possible a mistake which the full physical growth of most defectives would prevent.)

Remembering then that mental defectives are essentially comparable in some respects to children of the same mental age, we may classify the adult defectives into our three main classes, indicating, roughly, what they are capable of accomplishing. The adult moron has a mental age of about seven to ten years. He is usually able to learn a trade. Though failing when an emergency confronts him, he can conduct most of his work and his life alone. His safety and his salvation lie in carrying through the routine which has been drilled into his nervous system. Just because he is so similar to normal people in many respects, he is the most serious of all social problems which mental abnormality presents. Morons usually have large families, a large proportion of whom are mental defectives. From this group come a great number who drift into delinquency. The an-

nual economic cost of delinquencies committed by unprotected morons runs into many millions, and the moral and social losses are incalculable. The great majority of female morons marry and become the unintelligent mothers of children who are doomed both by heredity and by the situation in the home.

Imbeciles are, in general, those with a mental age (when adult) from about three to about seven years. The more intelligent of them can learn routine tasks and can be of some use about the institution or the home. While incapable of learning a skilled trade, they can learn to do unskilled or very slightly skilled labor with fair success.

Idiots are not only incapable of carrying out simple, useful tasks, but are, as a rule, incapable of taking care of themselves. Having a mental age of less than three, they are at best able to learn but little. The lowest grade of idiocy represents a condition like that of the child at birth, not even a vestige of language or social responsiveness being present.

About ninety per cent. of all mentally defectives belong to what is often called the primary group. The cause of the defect is to be sought in heredity, the degree of the defect tending in the long run to depend upon the defectiveness of the parents, though with considerable variation. Some important, though not entirely convincing evidence has been offered to indicate that the inheritance of mental deficiency is of that special type known as Mendelian. The exact laws governing the appearance of the defect remain to be ascertained, but there is much evidence to show that the intelligence both of normal and of mentally defective persons is dependent, to a very considerable extent, upon heredity. Abandoning the idea of giving a defective child normal intelligence—something which is just as impossible as to make the child born without arms capable of playing baseball—we can do a great deal to train him; that is, to establish habits useful to the individual and to those about him.

Some descriptions of mentally defective individuals of

various levels of intelligence appear on p. 3 f. I have also taken from the same author—Dr. Tredgold—an account of those curious defectives who display some striking gift (p. 24) which wins for them the intriguing but scarcely accurate name of "idiots savants" (none of them are really *idiots* in the modern English usage of the term). It must be remembered that it is only very *rarely* that the somber hue of mental deficiency is relieved by this interesting touch of color. The hereditary character of mental defect, and some of its social consequences, are indicated by Dr. Goddard on p. 10.

In addition to this hereditary or "primary" type of mental defect are to be mentioned a number of special or "secondary" conditions, more picturesque though far less common. Some of these are described by Dr. L. S. Hollingworth on p. 19.

In all of these cases, both primary and secondary, analysis of the brain indicates serious abnormalities where the degree of mental defect is severe, and only slight abnormality or no abnormality at all, where the defect is slight. The presumption (a presumption shared by the editor) is that the more important defects are those of the structure of the tiny nerve connections in the brain which are difficult to observe, and that inferior intelligence, in all its grades, is accompanied by *some* degree of inferior nerve structure.

Our next stopping-place in the "Kingdom of Evils" is *epilepsy*. The term is not a very precise one. Some convulsions result from definite brain disease. No very definite physical basis, however, can be postulated for most of the convulsions known by the French term "Grand Mal" ("Big Disease"). The sufferer is usually warned by an *aura,* some little feeling or impression such as a flash of light or an organic sensation which he recognizes as the immediate forerunner of the attack. Next comes the loss of consciousness, followed by a heavy fall; the hands are clenched, the jaws rigidly set, and there is foaming at the mouth. The

attack may last a half hour or so, and may in some patients be followed by a "furor" state in which frightful crimes are committed before the patient "comes to himself." Grand Mal attacks may come but seldom or they may be very frequent. Often there follows as the result of many attacks a general mental deterioration; or, if the attacks began in childhood, they may cause an arrest of mental development. Sometimes the Grand Mal attack is supplanted by an "epileptic equivalent," a confusional state in which (as in the furor) the patient is irresponsible. Very mild epileptic attacks involving a short loss of consciousness without falling and without significant after-effects are known as Petit Mal. Quite distinct from these types is *Jacksonian* epilepsy, a convulsion affecting a single member of the body. The hand may, for example, go into violent convulsions, while the rest of the body is not affected.

"Hystero-epilepsy" is superficially similar to the Grand Mal attack, but differs from it in various fundamental respects. The patient does not fall in such a way as to injure himself. He does not foam at the mouth. The attack comes on as a consequence of some factor in the environment, such as a quarrel or some disagreeable situation to be confronted. There are, in fact, many indications that there is a real motive at work. The attack may serve the purpose of attracting pity or of freeing the patient from some intolerable situation.

Within recent years an attempt has been made to show that even the Grand Mal attack is fundamentally of psychological, rather than of purely physical, origin. The matter is complicated, and is not settled.

We turn now to consider the types of insanity, or as they are known in psychiatry, the *psychoses*. The reader will find it worth while to turn directly to the narrative of one who himself passed through the terrible experience of insanity, but won his way back to a life of splendid humanitarian achievement. Some pages from this narrative—"A Mind that Found Itself" by C. W. Beers—will be found on p. 33.

A sketch of the various types of insanity may well begin with those which are undoubtedly due to some definite physical cause. Most obvious of these perhaps is the *traumatic* psychosis; a blow on the head results in actual destruction of brain tissue, while small injuries may be followed by a relatively short period of confusion, ending in complete recovery. Greater injuries, destroying considerable portions of the brain, are followed by more or less dementia. Another type of insanity results from cerebral *tumors.* A small tumor brings, as a rule, no psychological consequences; but as the tumor grows, more or less confusion or actual dementia may result. Some tumors may be removed surgically. Another category includes the general impairment of brain function in old age. While it is true that advancing years are apt to mean a slowing down and more or less actual dulling of all mental functions, there is nevertheless a fairly clear distinction to be made between the ordinary dulling of natural powers and the special impairment of intelligence and personality known as *senile dementia.* Loss of memory for recent events (characteristically present in a *slight* degree in nearly all old people) becomes severe; sometimes a senile dement will not remember even the outstanding events of the day, while retaining quite clearly events going back forty or fifty years. Impairment of judgment and reasoning is regularly present. Microscopic studies make it clear that these senile changes follow upon changes in the nerve cells in the brain. A large proportion of these persons also undergo actual personality changes, irritability and peevishness being particularly common. *Hardening of the arteries,* another affliction of old age, may accompany senile dementia, although the type of mental disorder is really quite distinct. The blocking off of some of the small arteries causes parts of the brain surface to be thrown out of function, and impairment of memory follows, usually accompanied by general disturbance in intelligence and personality.

Another type of dementia caused by actual destruction of brain tissue is dementia paralytica, or *general paresis,* now known to be always due to the invasion of the brain

by the syphilis spirochete. Brain destruction goes on so rapidly that most cases terminate within a few years in the death of the patient. It has commonly been said that the first stage is one of very mild disorganization of personality, often accompanied by great cheerfulness and optimism. The patient's judgment is just enough impaired to allow him to believe all kinds of good things about himself. This is followed by a period of depression, and the third stage is one of complete loss of all mental powers. Whereas the classical picture of the paretic given only a few years ago emphasized the great good nature, optimism and euphoria of the early stages in the disease, more recent work has tended to make clear that there are very large individual differences and that dull and morose types are very frequently to be found.

In fact, it may be fairly urged that personality changes are not in any sense whatever the *direct* result of the brain disorder. On the contrary, the brain disorder simply acts to interfere with memory and judgment, allowing the fundamental personality tendencies to express themselves in a new way. A man, for example, who has always covertly longed to be a great singer, becomes, at fifty-five, sufficiently disturbed in judgment to believe he is in fact just such a singer. It is not in any sense true to say that the disease directly causes the belief. The belief arises from the wish as soon as the obstacle of good judgment is removed. Many writers go so far as to insist that *brain disease* has, in general, no tendency whatever to produce specific types of *mental disease*. Mental disease, they assert, results fundamentally from the personality already present, and takes on a form determined by some of the deepest wishes of the individual.

We may pass over several other less common forms of syphilitic infection to pay more attention to the recently disastrous ravages of "sleeping sickness" (*encephalitis* of various forms). It is due to an infection, frequently resulting in permanent damage. The most curious thing about the disorder is that it shows in clear form many instances in which personality itself, rather than intelligence, is pri-

marily affected. There are, to be sure, some cases in which judgment, reasoning and everything else in mental make-up is disturbed by the disease, and, on the other hand, cases in which there is no mental disorder whatever accompanying the purely physical signs of the disease. Often, however, the patient becomes a *changed person.* He may, for example, become jolly and carefree, when he was before sober and serious. Now the disease is especially apt to attack the mid-brain; and all that we know about the relation of the mid-brain to the fundamental emotional elements in personality makes it reasonable to believe that the disease frequently upsets the physical structure of our emotional life.

Other groups of physically caused psychoses include delirium, excitement, and other disorders due to infections, poisons, and exhaustion. Poisons, whether introduced from without or manufactured within the body (especially by bacteria), may disorganize the brain machinery; these conditions are usually acute rather than chronic.

Many other chemical factors in relation to mental life and mental disorder are much to the fore at present. This is strikingly true in relation to the recent spread of interest in the glands of internal secretion. That normal personality depends to some extent on a proper functioning and interrelation of the "endocrine" glands appears certain, but there is an extraordinary amount of indefiniteness and contradiction in the current medical and psychological literature pertaining to defects and disorders of these organs. A few of the clearly established facts may be noted. Marked deficiency of the *thyroid* gland (in the neck) causes slow, torpid, inactive personality. If this condition is present at birth the individual is called a *cretin;* he is not only inactive and emotionally sluggish, but is physically and intellectually stunted. If the thyroid becomes markedly defective during adult life (in persons previously normal) the condition is called *myxedema.* In this there is torpor without mental deficiency. Overactive thyroids are often associated with overactive or overexcitable personalities, and some of these cases are so easily upset that they have to be closely cared

for. Overdevelopment or underdevelopment of the sex glands causes persons to be both physiologically and psychologically oversexed or undersexed. Many other glands cooperate with the sex glands in controlling the process of growth in general and sexual development in particular. But a person's sexual make-up is of course determined also in large part by environment, early experiences, the kind of family he or she belongs to, playmates, sex education or sex worries, etc. It seems likely that several glands play a considerable part both directly and indirectly in determining the individual's general emotional development, and there is even some evidence to suggest glandular differences between various human races which may be related to racial temperaments. Ten years from now it may be possible to state the facts in sufficient detail to prevent, through glandular therapy, various abnormal personality types.

Chemical factors introduced from without also play an important part. Alcohol, if its use be excessive and long-continued, may produce either the excitement and hallucinatory condition of *delirium tremens* or the (usually) auditory hallucinations of acute *alcoholic hallucinosis;* or the strange loss of memory for recent events (similar to that found in senile dementia) known as the *Korsakow* Psychosis, or, finally, the general deterioration of all mental functions, known as *alcoholic dementia.* Various other drugs, especially the opiates, cause both deterioration of personality and, in the last stages, intellectual derangement.

We come now to a group of mental disorders in regard to which no clear demonstration of brain abnormality has been offered. These are contrasted with "organic" disorders, and usually designated "functional." One of the commonest is known as the *manic-depressive psychosis.* This is essentially a disorder in the emotional life, manifesting two strikingly contrasted types, mania and depression, as well as mixed types. These disorders are so common, so severe, and so baffling, that I have included (p. 113) a long description of them taken from the work of Jelliffe and White.

In some cases of depression coming on in later life, the symptoms are somewhat altered, the disorder being known as involutional melancholia. The condition is described by Dr. Rosanoff on p. 129.

Another group of mental disorders for which no clear cause in the brain is to be assigned is known as *dementia præcox*. Some authorities believe that this name really groups together several different disorders, because of certain general resemblances; and the recognition that mental disorders do not fall nicely into pigeonholes, and that transitional types are found between them, makes the classification purely one of convenience. Nevertheless it may be said in general that one thing which all patients in this group have in common is a *dissociation* or splitting of personality, that is, a tendency for part of the mental life to exist independently of the rest. This very important aspect of mental disorder is discussed on p. 46 f. by Dr. Hart, who shows its importance in a great variety of situations. The mildest form of such dissociation is the absent-mindedness which all of us show at one time or another. Suppose, for example, we are reading a newspaper and mechanically answer a question without attending to it. The mind is really on the paper; not on the answer. A slightly more definite form is the case of the dream which pictures a situation which has for years ceased to exist. We really know that a given situation has no reality, yet we may, so to speak, put aside this knowledge and live in the dream world. Now, many a dementia præcox patient lives in a dream world. He may, for example, carry on the routine of the hospital ward, seeming, in most respects, to be mentally and physically present, yet his real mental life, his day dream, may be going on "a thousand miles away."

It is easy to see how such a condition will be reflected in delusions; for day dreams are for the patient entirely *real*. The systematic study of such delusions shows nearly always that they arise not through mere chaos in the patient's mind, but through some definite wish, some fundamental craving which the world of reality has frustrated. Dementia præcox comes on very frequently in consequence

of some defeat in meeting the world of reality, a business catastrophe, a frustrated love affair, or some other cataclysm in the patient's life. Unable to face reality, he withdraws into an imaginary world in which his wishes may be fulfilled. Sufferers from all types of dementia præcox are apt to undergo more or less deterioration of intelligence and personality unless some one succeeds in dragging them back to an interest in reality. When delusions are present, deterioration involves the gradual breaking down of the intellectual coherence of the delusions.

Dementia præcox is the commonest of all the psychoses. In the endeavor to make it clear to the reader, I have included the very lucid presentation of the subject by Strecker and Ebaugh, and a number of case histories given by them (p. 71).

True *paranoia* manifests the same tendency to delusions; but these delusions are better "systematized." Strecker and Ebaugh's discussion of paranoia will be found on p. 103.

No matter how complicated the causes may be which lead to the functional psychoses, it is at least highly important to know the nature of the immediate or precipitating causes, and the relation of the personality to the outcome of the psychosis. To this end I have included papers by Dr. Strecker and Dr. Bond, on p. 136 and p. 145 respectively.

Finally, before leaving the functional psychoses, it is worth while to mention the recent work of Kretschmer, in which an attempt is made to show a relation between *physical type* and *mental disease*. He reports certain physical types as related to the two great functional psychoses, the manic-depressive (cyclothymic) and the dementia præcox (schizophrenic).

Many investigators are pursuing Kretschmer's methods to-day, some seeming to confirm and some to refute his assertions.

Another group of badly adjusted personalities comprises the "constitutional psychopaths" or "constitutional psycho-

pathic inferiors"—persons who are not "insane," yet emotionally and temperamentally so very unstable or so hopelessly lacking in self-control that they cannot adjust themselves to life. Their instability predisposes them, of course, to periods of more intense disturbance which seem "insane" enough; it is only when an actual psychosis develops that they are apt to be sent to an institution for the insane. They constitute, however, a considerable proportion of the miserable population of jails and penitentiaries; for this instability often enough means an inability to keep their peace with the law and with their neighbors. Discipline and deterrent punishment do not touch the problem; the psychopath may drift in and out of prison and suffer endlessly for his misdemeanors, yet lack the judgment and will to make an adjustment.

Finally, we come to a variety of mental and nervous disorders which, painful though they are, seem nearer to our everyday humanity, more easily understood in terms of what we daily feel and do—the *psychoneuroses* or *functional nervous disorders*. The widest differences prevail among psychiatrists as to their interpretation, and even as to their classification and the terminology used to designate them. I must content myself with a brief description of some of the common types.

The hysterical patient, though organically sound, characteristically suffers the loss of some physical or mental function; an arm, though sound, is paralyzed; an organically healthy eye is blind; the muscles of the legs and feet, though sound, cannot hold the patient erect. Memory may be affected; the patient may forget some dramatic event that occurred only an hour or two before; or he may lose a week or month from any part of the archives of his memory, retaining what went before and after. The hysterical crisis, or attack, may intervene at any time, but the most general characteristic of hysteria seems to be this loss of function.

Janet's case, Irène (see page 151), cared for her sick

mother during many painful weeks. The mother's death had a singular effect upon the girl. In spite of her devotion, she simply proceeded to forget all about the morther's illness. The entire episode of caring for her mother had dropped out of consciousness. On the other hand, she would at times pass into a strange "distracted" state, in which, oblivious to all about her, she would pass back and forth beside the imaginary bedside of her mother, who seemed to her to be present. Just as in the case of dissociation mentioned above, a part of her mind was withdrawn from the external world. She would, however, come suddenly back to reality, again forgetting the entire episode of the mother's illness. Though such a disorder has something in common with dementia præcox, it differs in three respects. First, the hysterical loses a block or large segment of consciousness while the dementia præcox cases lose, so to speak, odds and ends. Hysterical consciousness usually remains coherent while that of dementia præcox is disorganized. Second, in most respects the hysterical patient is capable of living a normal social life. Third, he recognizes that his conduct is unusual.

This third point, the fact that the patient usually recognizes that something is wrong, is the clearest single point that we can find to differentiate the psychoses as a group from the psychoneuroses. It is not an absolute criterion (nor does such a criterion exist); but except for a small percentage of cases (especially among persons recovering from the manic-depressive psychoses), the insane *do not know they are insane,* refuse to be corrected, and proceed on the assumption (as the rest of us do) that they are "all right." Persons suffering, however, from psychoneuroses are mentally sick enough to be miserable, but are well enough to realize fully that they are sick. Most psychoneurotic cases can be cured or at least greatly helped by proper technique; and very few indeed of them pass into insanity.

Let us turn for a moment to problems of interpretation. Another celebrated case of hysteria, one reported by Breuer and Freud, displayed, among other symptoms, the curious inability to drink from a glass of water. She would lift the

glass to her lips, and then be overcome with disgust and emotion, which she could not explain. A long process of "talking out" the case traced it back to an episode in which the young woman had seen a little dog, belonging to a friend, drink from a glass of water. The disgust attaching to the situation had remained.

These two cases admirably illustrate the different interpretations which may be offered for hysterical phenomena. Janet believes that Irène, like all hysterics, suffered a splitting of consciousness, due to an internal weakness of her own mental structure. Part of her mind simply became detached from the rest. Freud, on the other hand, interprets his case not at all in terms of the original psychic structure of the individual, but in terms of a direct conflict between the emotions experienced. Disgust, though powerful, was in conflict with a desire to be courteous in her friend's presence, and it was, in Freud's language, suppressed. But though suppressed, it continued to force its way back into consciousness. When the glass of water appeared, the disgust attached to it forced its way into consciousness, although the painfulness of the original scene was so great that the situation itself could not force its way into mind.

Now, both of these cases of hysteria, and practically all cases that come under that rubric, manifest this cleavage or splitting of consciousness, some elements being lost from voluntary control. But with Janet we have an essentially static interpretation; with Freud a dynamic interpretation.

Remembering this fundamental fact of splitting of consciousness, we may give brief attention to a few other types. In *obsessions,* the patient suffers from a fixed idea from which he cannot rid himself. He has a feeling, for example, that he looks like a monkey; and though day after day he seems to those about him to be normal enough, his idea—and his embarrassment—persists unmodified. *Compulsions* exhibit a very similar picture. The patient feels impressed to do some silly or disagreeable task, such as counting all the telegraph posts, or reading aloud the names on all the store-fronts which he passes. A third dis-

order more or less resembling these comprises the phobias in which there is an unreasoning dread of some particular person or situation. Among the commonest are misophobia, the fear of dirt (these patients may wash their hands half a dozen times successively before a meal, never feeling really reassured that their hands are sufficiently clean); agoraphobia, fear of open spaces, the patient clinging to the sides of buildings, being unable to venture into an open place, and claustrophobia, the fear of small rooms and other confining places. See Dr. Rivers's article on p. 154. Obsessions, compulsions and phobias are sometimes grouped together as psychasthenia.

Another group of disorders lumped together under one name comprises the various forms of mental and nervous fatigue, to which the name neurasthenia is sometimes given. Undoubtedly a large proportion of these cases are due to severe mental conflict, particularly conflict arising from sexual worries. It seems, however, that some are due to actual mental overwork, pure and simple, and some due to infections, the waste products of which poison the nervous system. Though proof is lacking, it appears probable that nervous exhaustion, whatever its origin, rather frequently entails, or at least is accompanied by some degree of glandular exhaustion, or dysfunction. Because some of these cases are undoubtedly of purely mental origin, there seems to be justification, in our present state of ignorance, for retaining the general name neurasthenia to apply to cases arising from prolonged mental conflict, in which mental fatigue is the chief symptom.

Jerome K. Jerome tells in *Three Men in a Boat* how he casually ventured upon a little medical reading, and how, as he read the description of disease after disease, he discovered that he had them *all* (or rather, all except "housemaid's knee"; it was unfair, he thought, that somehow he hadn't housemaid's knee).

Similarly, the reader will probably notice traces of many of these mental maladies within himself. If he is an astute

observer, he will probably find in his own history, especially during adolescence, the earmarks of half the numbers in our whole repertoire. In fact, it is doubtful whether one can really understand those whom heredity or environment has pushed across the line into definite mental disease, unless one has at times seen the sign-posts along the paths which lead to that country. The recognition of the essentially normal nature of abnormality is perhaps the first essential towards understanding it.

The psychiatrist and the psychologist fail to find any sharp distinction between these apparently abnormal traits on the one hand, and similar, though less marked, traits in normal people. The psychoneurotic and insane are, so to speak, simply "more so." To be sure, a full-fledged manic differs so radically from the same individual after recovery that a glance suffices to show the presence of mental disease in the former. The fact remains that coffee, alcohol, or even a bright spring morning may often produce in many of us characteristic manic behavior which differs from the institutional type only in intensity and duration. Furthermore, modern psychiatry regards the psychoses and psychoneuroses simply as centers of reference for the convenient grouping of cases which present a vast variety and complexity of traits, no really sharp lines of demarcation appearing clinically. To be sure the "type case" is to be found, but the transitional case gives the lie to the pigeonhole classification. Such transitional cases are in fact to be found in the various unusual conditions described by Dr. Aikins, Dr. Morton Prince, Dr. Mühl, Dr. Wells, and Dr. Walter F. Prince on p. 175 ff., none of which seems to require explanation or editorial introduction. The next three articles—those by Dr. Hohman, Dr. Kenworthy, and Miss Foster—deal with the origins of mental abnormality in childhood.

The contribution of psychology to the study of criminalism is at last becoming important. It does not help much to know that some criminal groups are largely composed

of feeble-minded, insane and excessively unstable personalities; what really *does* help is the patient and detailed study of the interplay of life forces which make for a criminal act or a criminal career. Of course, the vivid study of a "desperate felon" has its place as literature, though the real anguish of most such lives is seldom understood. But it has seemed more worth while to give two selections showing the actual struggle between helpful and hurtful forces at work in the lives of young delinquents—and some of the factors which tip the beam in the decision between the criminal way and the normal way through life. The selections from Dr. Van Waters's *Youth in Conflict* (p. 277) show the situation as the Juvenile Court finds it. The "Case Study" of "Jack Long" from the Judge Baker Foundation is a model of modern scientific method in the study of criminalism, in which human insight and technical skill are beautifully combined.

That life in penal institutions is provocative of much mental instability and an actual *cause* of much crime is also very evident from many careful studies; young men and women are sent after some adolescent "slip" to an institution which stamps in upon them day after day the brand of criminality. To be suspected at every step; to be "counted" over and over all day long; to march everywhere in solemn two-by-two; to hold no converse with any human being save a half hour a day in the presence of a warden; to rise at last in a moment of fierce protest, and to be flogged or put on bread and water; these are "normal" and typical parts of our process of "reforming criminals." Lucky are those few who can come out with no desperate resentment in their hearts, who can hold up their heads and fight their way to a decent place in society.

It is important to remember that not only individuals, but groups, display the phenomena of abnormal psychology. The suggestibility, as well as the primitiveness and brutality, of mobs, are familiar themes. From medieval methods of torture and witchcraft epidemics to the modern

technique of controlling public opinion through propaganda, social psychology is full of grist to our mill. But none of the grist has as yet been ground fine enough for use here, I fear; at least I have not encountered a single study of the abnormalities of a group which is scientifically satisfactory. (Perhaps if we had some really scientific knowledge of social psychology we might have "new worlds for old"). We labor slowly, for example, to understand the economic causes of war; yet how little do we know of the mechanisms by which these economic forces become "humanized"—turned gradually into scheming, deliberating, speech-making, scare-head-printing, brass-band-playing, bayoneting, disemboweling human beings. It all seems so obvious; actually it is "obvious" only because we understand it all so little. Nevertheless, contemporary social psychology and abnormal psychology are influencing one another more and more, and in a few years they will overlap or intertwine still further.

The relation of genius to mental instability is a problem so fascinating that I have been sorely tempted to include some biographical material relating to Mohammed's epilepsy, Joan of Arc's visions, Dr. Johnson's "compulsions," Cowper's madness. I have come to the sad conclusion that such brief excerpts are of little value; and that the reader should be urged to study the whole biography of one of those just named, or of any of the following: Blake, Bunyan, Coleridge, Dostoievsky, Lamb, Nietzsche.

But we must set a limit upon our present endeavors, and it is best that the line be drawn to include only those abnormalities which the methods of psychology have charted with some degree of accuracy. When the reader has followed our authors in their delineation of the various aberrations of human personality, we shall meet again for a few minutes in the last chapter.

GARDNER MURPHY.

MENTAL DEFICIENCY

(FEEBLE-MINDEDNESS)

AN OUTLINE OF ABNORMAL PSYCHOLOGY

MENTAL DEFICIENCY [1]

BY DR. A. F. TREDGOLD

A. C. is a man of twenty-two years, although he looks only about seventeen. He went to an ordinary elementary school, and was in the sixth standard when he left; but his schoolmaster tells me that he was only moved up each year on account of his size and age, and that his scholastic attainments were really only equal to Standard III. During the two years following school he had several situations, mostly as errand-boy, but he was discharged from each place in turn on account of general incompetence. Then, he was taken, largely from philanthropic motives, into a printing office, and there he has remained until the present time. His work is purely mechanical, and consists in helping a man with the machine, carrying bales of paper, and so on. He began with a wage of nine shillings weekly; this has been increased, and he now has a standing wage of eleven shillings, but he often puts in overtime, and he usually earns about thirteen shillings. He lives at home with his parents, and he gives his money to his mother, who allows him a shilling weekly as pocket money. When clothing or boots are required, his mother buys them, and, in fact, he is treated exactly as a child. He is perfectly happy and contented with his lot, and has no ambition to be other than what he is; but it is difficult to say what is going to happen when he has no home to go to and no parents to look after him. I asked him if he had ever thought of getting married.

[1] From *Mental Deficiency* (4th ed.). Reprinted by courtesy of the author and the publishers, William Wood and Co., New York.

He said: "No." I asked him if he ever kept company with any one. He said he did for a time, and used to "walk out" with a girl every night. To my questions as to what he used to say to her, he said: "She used to ask me how I was getting on at my work. I said: 'Pretty fair.' I used to ask her how she was getting on at her work. She said: 'All right.'" There do not appear to have been many love-passages, for he admits that he never kissed her. After six months the maiden tired, and she now walks out with one of his more enterprising mates. This youth once conceived the desire to join the Volunteers, and applied to the local non-commissioned officer. The Sergeant-Major, a shrewd man and a good judge of men, rejected him, and when I asked if he didn't come up to the physical standard, said, "His body was all right, sir; but he had too little brain-pan." . . .

I am acquainted with a feeble-minded man, John C——, who has steadily and industriously cracked stones by the roadside for the past forty years. He lodges in the village with a laborer and his wife, and the latter wakes him in the morning, gives him his breakfast, makes his dinner into a parcel, and sends him off to work. When dinner-time comes, which he knows by seeing the laborers in the field leave off work, he eats the contents of his parcel. Sometimes John feels hungry and eats it before. About five o'clock, which he also knows by the passing of the postman, he leaves off work and returns to his lodging. He has his tea, sits by the fireside until about eight, and then goes to bed. Occasionally John has been known to get tired of work and come home in the middle of the afternoon; but such lapses are very rare, and so on the whole he is exceedingly methodical and industrious. He knows that Sunday is a day of rest, but he must be told that it is Sunday, or he would go to work as usual. John's landlord once played him the prank of not telling him it was the Sabbath, and he went off as usual without any suspicion. But he had intelligence enough to notice the trick on passing through the village, by seeing that the shop was closed, and he came back vastly amused by what he thought was a fine mistake. He receives a few shillings each week from the Rural District Council, and this he faithfully carries to his landlady, who allows

him a penny now and then when he asks for it. This, however, appears to be seldom, for John seems to be in the happy condition of having all his wants supplied.

One might describe many cases similar to these, both in town and country; but it is unnecessary. They illustrate very well the stable type of feeble mind, and the manner in which routine work may be performed by this class with comparatively little supervision. It is necessary to remember, however, that their intelligence is limited, and that these persons must not be entrusted with work beyond their capacity, or the result may be disastrous.

It is not, perhaps, surprising that the mind which is defective should also lack balance, and in a very considerable number of feeble-minded persons—indeed, I think in the majority—the mental defect is accompanied by more or less mental instability. This may not become evident until the physiological epochs of puberty or adolescence have been reached, and one meets many cases in which the whole disposition of the individual seems to undergo an alteration at these times; but often the condition can be detected in childhood, and is shown by the fits of irritability, excitement, moroseness, sulkiness, or so-called "bad temper," which are present in a considerable number of defective children.

The degree of instability varies much in different individuals, and at different times in the same individual. Some are simply giggling, emotional, and impulsive, liable to sudden fits of waywardness, but readily controllable, and on the whole capable of doing useful work. I have known one of this type, a silly, giggling, weak-minded girl, to plunge her head into a pail of water without the slightest hesitation when the suggestion was made to her. I have known another to set fire to a hay-rick, and another to dash her hand violently through a window-pane in a sudden access of temper. And yet all of them, on the whole, were good, willing workers and in fairly constant employment. I have seen girls of this type who have caused no little commotion by "faking" a burglary, even going to the length of gagging

and binding themselves and giving a most detailed description of an imaginary desperado.

In others, however, the instability is more persistent, and the person is so changeable and undependable that continuous employment is out of the question unless the closest supervision can be maintained. The attacks of these persons often have much of the character of an epileptic seizure, the manifestations being mental rather than motor, however.

The following are illustrative cases of this unstable type of feeble-mindedness:

ALICE S—— is a feeble-minded girl of nineteen years. She is the daughter of working people, and went to the Board-school until she was fourteen years of age; but her schoolmistress says she could make nothing out of her, that when she left she could only just read and write, and that she was "always spiteful, untrustworthy, and a regular nuisance." Upon leaving school a situation as day-girl was found for her. She ran away on the third day, and refused to go back. Then she got another place, but only stayed a week, as her mistress "could not put up with her ways." This went on for over two years, during which time she had no fewer than twenty-two situations. She was then sent to a laundry training-home, and here for the first few weeks she was much quieter, and it was hoped that she would settle down into good habits. But the hope was futile. The matron found that not the slightest dependence could be placed upon her word, that she was dirty in her person, lazy, an incurable pilferer, and up to the most cunning tricks to annoy and irritate her companions. She was therefore sent home again. Here she remained for some months, doing no work, and causing her relations endless trouble and worry. On several occasions she was brought home by the police, and finally, within a year of her return from the training-home, she was admitted into the maternity ward of the workhouse. It was there that I first saw her, and although she was a strong, active girl, and quite capable of doing domestic work, she was nevertheless so erratic, impulsive, and generally irresponsible, that nothing could be made of her. . . .

J. F., male, twenty years old, is the last born of a family of seven, of whom three died in early childhood (one of convulsions); two are said by the mother to be "all right," whilst another is mentally defective. The father is alive, but has been insane in an asylum twice; one of his brothers died in an asylum. The mother is alive, but in delicate health. Two of her sisters and one brother died of consumption.

James has always been "delicate"; he did not stand until turned two years, and did not walk until his fourth year. He was over five before he spoke, and even now his vocabulary is limited to about a dozen words. These he uses very sparingly, and it is rarely that he can be got to reply to questions, although he understands a good deal of what is said to him. He never attended school, as the headmistress refused to have him. He remained at home quite unoccupied until fifteen years of age, when he became unruly and more than his mother could manage. Since then he has been in an asylum.

He is a short, stumpy, fat youth, with coarse features, large outstanding ears, and a typical imbecile expression. He has a high saddle-shaped palate and very irregular and malformed teeth; but these cannot always be demonstrated, as he usually obstinately refuses to open his mouth. Cranial circumference, 22½ inches. There is no paresis, but he is clumsy and heavy in all his movements. There is no marked defect of the special senses, but, owing to his usually taking not the slightest notice of any question addressed to him, he has been thought to be deaf. This, however, is not the case, as I have succeeded in getting him to turn round at the sound of a whistle, and have once or twice managed to get him to execute a simple command. He seems to have little idea or care as to where he is, is apparently unconscious of the flight of time, and is, as a rule, perfectly stolid and inoffensive. But occasionally he has a noisy outbreak, and then he will rush about the ward grunting, yelling and interfering with any one whom he meets. I saw him one day munching biscuits out of a paper bag which had been brought him by his mother. I intercepted each biscuit on its way from the bag to his mouth

He did not seem to mind, and placidly got another out of the bag. When I had succeeded in getting them all, he stood still in a vacant, perplexed sort of way, without seeming to understand or care very much, and after a time he walked away.

H. C., female, seventeen years, is the fourth of a family of eight, three of whom died in infancy; insanity and epilepsy on father's side. No others are mentally affected, but mother says they are all delicate. The patient never seemed the same as the other children from birth, and did not walk until her fourth year. She has never talked properly. She went to school for several years, but never learned anything, and finally the mistress said she had better not come any more, so she has since been at home. She understands a good deal of what is said to her, and can execute simple commands, such as to shut the door or fetch a chair. She can answer simple questions in monosyllables, but her articulation is so defective as to be unintelligible to a stranger. She has no idea of number, and everything is "two." She has no knowledge of letters, but can make strokes and ciphers on a slate. She also knows the names of the common objects of the house. On the whole, she is quiet, obedient, and good-tempered. She is not actively destructive, but will always pick a patch off her clothes if they have been mended, and her chief joy is to have a piece of cloth given her to fray out. She cannot wash or dress herself, but can feed with a spoon, and is of clean habits. Her chief peculiarity seems to be that, as soon as she takes the first mouthful of food she invariably goes to sleep, and has to be awakened to finish her meal. . . .

E. J., female, aged thirty-two years. A pronounced history of insanity and epilepsy on the maternal, and alcoholism on the paternal, side. Has been in the asylum since seven years of age. A repulsive-looking woman, with a muddy, freckled face, coarse red hair, and numerous stigmata; cranial circumference, 21 inches. She can walk, but spends the day sitting in a chair turning her head from side to side, rocking herself to and fro, and biting her hands. She is of unclean habits and is unable to do anything for herself. She is quite deaf in the right ear, but

listens attentively to the ticking of a watch held close to her left one. She seems to have no knowledge of time or place, and apparently no understanding of anything said to her. But when the piano is played, she at once ceases her rhythmic movements and listens attentively. She cannot speak, but she will hum the tunes she has heard so well that they are readily recognized. As a rule she is harmless, but upon any attempt at examination she makes violent resistance and tries to bite, and she is at times spiteful and interferes with the other patients.

A. D. P., female. Has been in the institution since childhood, but the family history is not obtainable, as there are no friends living. On admission she was unable to dress or feed herself, and had no apparent understanding of anything said to her. She showed no curiosity, no imitativeness, and no power of attention. Her habits were unclean, and she was constantly dribbling from her mouth. She was a voracious eater. She was unable to speak, but addicted to violent yells, often interspersed with a peculiar sound like the braying of a donkey. She was at times exceedingly violent, kicking, biting, and scratching the nurses and other patients indiscriminately, and, in fact, was generally a source of endless trouble to the whole ward. She remained in practically the same condition until thirty-five years of age, when she had an epileptic attack. From this time until her death she was subject to occasional recurrences of the fits, and she died at the age of thirty-six, of gangrene of the lung, resulting from the aspiration of a small portion of food. The cranial circumference was 20 inches, and there were numerous stigmata of degeneracy,

FEEBLE-MINDEDNESS: ITS CAUSES AND CONSEQUENCES[1]

BY DR. H. H. GODDARD

The sources for the following information are: records of the Institution for Epileptics, Almshouse records, Board of Children's Guardians, Overseer of the Poor, and eight intelligent and responsible men and women.

HISTORY OF MABEL, ANNIE, AND MARY CORNER: THESE ARE NIECES OF THOMAS C.

MABEL, the oldest of the fraternity, was born at ——— about 1905. She was committed to the Children's Home in January, 1912, was returned to her father for a time but recommitted July 2, 1912. Is considered feeble-minded. Her teacher says that she is mild and obedient; is poor in school work but makes some progress; is fair in hand-work.

ANNIE CORNER, born January 8, 1906, was committed to the Children's Home in January, 1912; was returned to her father and recommitted in July, 1912. She is defective. Her teacher says that she is of a different type from her sister Mabel. She is quick in taking directions, but stubborn. Makes progress more rapidly than Mabel.

MARY CORNER was born at ——— about 1909. She is not attending school and it is as yet too early to decide as to her mentality.

THE FATHER, WILL CORNER, BROTHER-IN-LAW OF THOMAS C.

WILL CORNER was born at ———, but has lived for some years past in the neighborhood of ———. He drinks

[1] From the volume bearing the above title. Reprinted by courtesy of the author and of the publishers, The Macmillan Company.

but could not in any sense be called alcoholic. He is not inclined to work unless forced to do so by immediate necessity; never works regularly or steadily, only by the day or week, usually the former. Is fond of fishing and trapping. He is rather unusually large, strong and able bodied. Wears his hair long and has a most unkempt appearance. Is boy-like in his lack of responsibility; good natured, and unreliable. When in town is the butt of jokes at the corner grocery. At present is living with his former wife's aunt who receives a pension and assists in supporting them both. Corner's first wife came from ———. She was feeble-minded. Is said to have died from going out of doors barefooted soon after a child was born. By her, Corner had one child. After her death, while working in the neighborhood of ———, he met and eloped with Fanny C. (sister of Thomas C.), who became his second wife, taking her to ——— to be married. During their married life they lived in ——— and ———. Received charity from private sources.

Will Corner had a brother Ed who was a marble cutter and lived in ———. It is thought that he moved to ——— several years ago. He is said to drink heavily. Another brother known as "Lying Joe" was a steady drinker. Another brother, James, was known as "Crazy Jim" and was an imbecile. He did odd jobs in return for food and tobacco and was often imposed upon on account of his lack of intelligence. Miss ——— says that he was extremely gluttonous and that she remembers as a child seeing plates of food heaped up for him. One time when there was a wedding in the family they gave Jim as much as they thought he could eat in the kitchen and then sent him home with a basket to his mother. On the road he stopped to eat more, and was later found by the side of the road in great agony from cramps. He was physically strong and was a good worker when put at a simple task, but was entirely unable to plan work. He was found dead in a barn. Cause of death was thought to have been heart trouble. A brother, Paul, is said to have been a worthless drunkard. A sister, Jennie, is remembered to have been slow in school. Another sister, Mamie, was born about 1842 and died in

1906 of general debility. During the latter part of her life she had a rupture but continued to work out by the day. She is said to have been a fairly good housekeeper. A brother, George, is said to have been a man of industry and good habits, and to have saved some money. His two sons are said to have turned out badly: one is reported as an habitual drunkard, and another is said to have gotten in trouble for shooting his wife. Dan, another brother, was born in 1840. He is illiterate and decidedly alcoholic.

THE MOTHER

Millie C. (sister of Thomas C.) was born in 1881. When a small child she was sent to the County Almshouse with her parents, her sisters, Carrie and Violet, and her brothers, Thomas and Henry. At about ten years of age she was taken from the almshouse and remained in a private home until she was sixteen years of age when she ran away with Will Corner and married him. Mrs. ——— says that she was decidedly defective, was slow to learn in school, and was incompetent in housework. If left alone she would not finish a task. Her facial expression indicated mental defect and she sometimes drooled at the mouth. When her first baby was born she was still a girl in short dresses. She was entirely incapable of managing her household, and her children were badly neglected. In manner she was quiet, peaceable and dull. She could read and write a little. She died of tuberculosis in 1910, when 29 years of age.

THOMAS C.'S BROTHERS AND SISTERS

May C. was born in 1872. When a small child, was in the Almshouse with her parents, two brothers and a sister. Twice was taken from the almshouse by Mrs. ———. The last time Mrs. ——— took her, she had a small infant. After staying for eight or nine months she deserted the baby and ran away with a half-witted fellow named Smalley, and came back after several weeks saying that she had married him. For several years they have lived in ———, have drunk, quarreled and often been in Police Court. May's reputation for immorality is well known. She has

had four children. The last one which is very dark is thought to belong to one of the Italians who frequented the house. The family were ordered to leave town in the fall of 1912, and moved to ———. Two of the children attend school and are considered feeble-minded. Smalley is guilty of having relations with his wife's oldest child. In speaking of May's mentality, Mrs. ——— says that she is not bright, is childlike, does not consider what the results of her actions will be; is quarrelsome and immoral. She, her husband, and children have the reputation of stealing. (Smalley belongs to a degenerate family well known in the neighborhood.)

Mazie C. was born in 1874. When about 14 years of age she went to live with Mrs. ——— and remained with her for four years, when she went to her aunt. She married a man who drank, but who was superior to herself, but she does not live with him. Has lived with various men. At the time of the investigation was living with a man named Joe Corner. Has been caring for her sister's children since her death. Is a poor housekeeper, never stays long in one place. Has a defect of speech and is undoubtedly feeble-minded.

Nell C. was born in 1876. She is said to have been brought up on —— mountain. Her first child, Charlie, born November 2, 1906, is said by her family to belong to a son of B——— B———.

She then married a foreigner and the family claim that he deserted her after having two children by her. After that she lived with her mother. She died at child birth. This last child, which was still-born, was said to be by her mother's consort. Her children, who are thought to be by the foreigner, are Sam, born in 1908, and Mag, born in 1909.

Nancy C. was born at ———. She, with several other members of her family, was sent to the Almshouse when a child of seven. By poor officials she was placed in the family of Mr. ———, but was returned because she was considered feeble-minded. On July 12 she was committed to the care of the State Board of Children's Guardians and was placed out by them. She became of age in 1912, at

which time she was living with a Mrs. ———. She was visited by the research worker from Vineland, who considered her high grade feeble-minded. She said that she expected to marry a man whom Mr. ——— had picked out for her. She had not seen him yet but was delighted at the prospect. Is fond of dress and fixing up her hair.

THOMAS C. was born in 1892. As a baby his mother says that he was well, but when about ten years old began to have "fits." He was placed out by the State Board of Children's Guardians but was found to be feeble-minded and was transferred to The Training School at Vineland in 1903.

VERNON C. was in the County Almshouse with his parents in 1897, at which time he was recorded as being three years old. In 1901 he was committed to the care of the State Board of Children's Guardians but was found to be epileptic and was committed to Skillman Village in 1907. He ran away from Skillman and has not been returned. The records show that he has had no convulsions since 1899. He had a pronounced defect of speech and stuttered badly. Was considered a fair patient and played a trombone in the band. His mother says that he was well as a baby but that he began having "fits" when five or six years old. (There is probably another sister.)

THE FATHER-IN-LAW OF THOMAS C.'S SISTER MILLIE

MILTON CORNER was bound out as a boy to Gov. ———. He had little schooling and was illiterate. The Governor's family do not remember much that would throw light upon his mentality. The family were always wretchedly poor, always lived from hand to mouth, and none of them were to be depended upon. They always thought that Milton would have gotten along better if he had not had such an extravagant wife. They lived for many years in a little log cabin near the station. His son-in-law says that from the time he first knew him, beginning when Milton was 40 years of age, his mind seemed to be affected. He would sit by the stove for hours at a time and would not notice anything, often could not be persuaded to go to bed. Would not tell any one of his plans and would sometimes wander

off for several days at a time. He had delusions of sight and imagined that people were after him. During the latter part of his life his wife had to work out to support the family. He never owned property but rented the log cabin in which he lived.

THOMAS C.'S FATHER

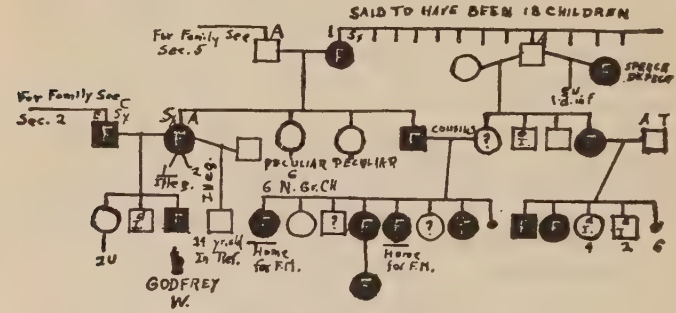
Lemuel C. was born in 1855. The field worker at Skillman believes that he was feeble-minded, she also reports that he was a laudanum fiend, and that he consumed it in large quantities. They were living on ——— Mountain in a log house. They are described as wretchedly poor and destitute. One informer remembers seeing them seated around a table composed of boards, eating out of hollow squashes, and drinking from old tomato cans. In 1897, Lemuel C., his wife and his children: May, 15; Nell, 9; Nancy, 7; Thomas, 5, and Vernon, 3, were committed to the County Almshouse. Lemuel C. died there at the age of 49 of tuberculosis. He had rheumatism severely.

THOMAS C.'S MOTHER

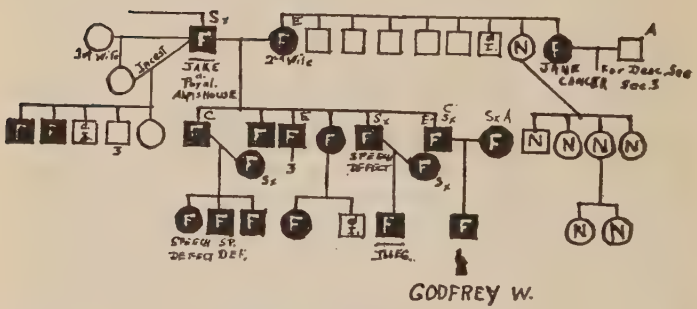
Phœbe E. was born about 1858. She does not know her exact age. She, as well as her sisters, were given out to be brought up. She knows nothing about her parents except that they are dead. She claims that her first husband deserted her just before the birth of her first child. She told the field worker at Skillman that she feels sure that he ran off with her sister; at any rate her sister disappeared at the same time and neither of them have been heard of since. She then married or lived with Lemuel C. and had eleven children. The youngest, she says that she gave to a woman but she cannot remember her name. She heard later that the child died. After going to the Almshouse with C. she ran off with another man from the county house; but claims that she deserted him in the night. She never stays in one place, often tramps for miles to make a visit, stays a few days and then goes on. She claims that she married her third consort several days ago. She has been living with him for several years off and on in a place called Roaring Gulch. She is a shiftless housekeeper, is both fee-

ble-minded and epileptic. Says that she has always had "fainting spells," drops down anywhere for no apparent reason. She feels the spells coming on and screams. Has always been immoral.

The following genealogical record of a mentally defective family speaks for itself.[2] [Ed.]

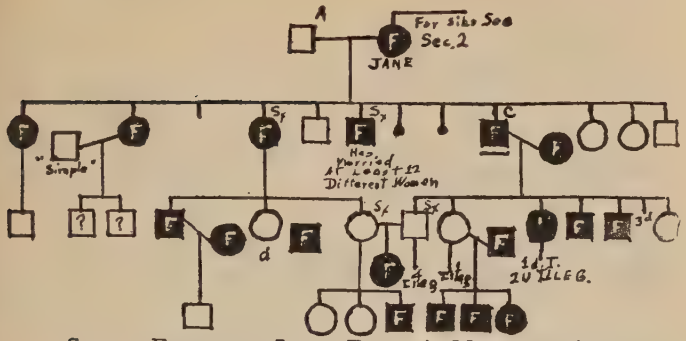


SEC. 1. MOTHER'S FAMILY

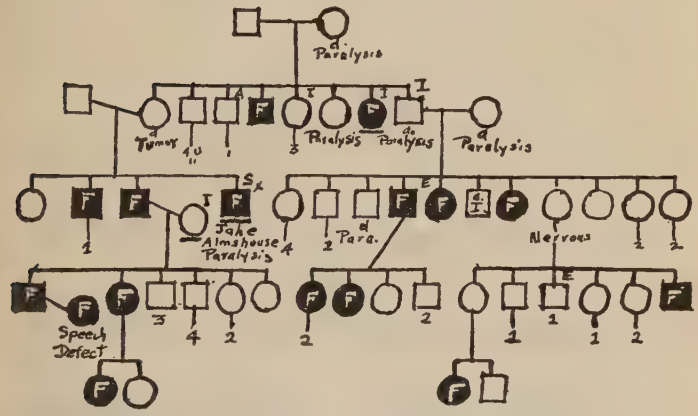


SEC. 2. FATHER'S FAMILY

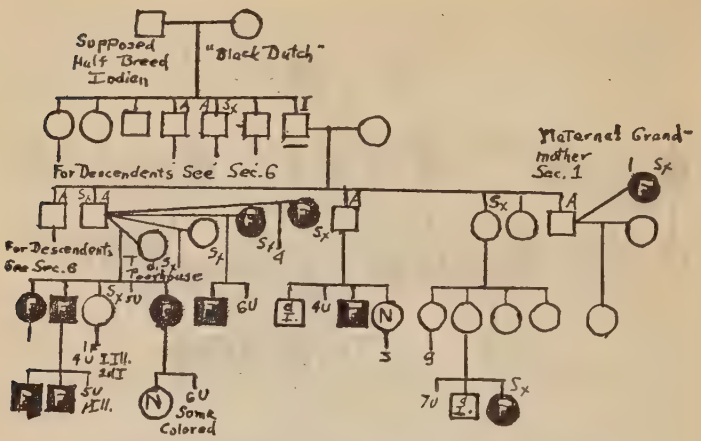
[2] From Goddard, *op. cit.;* Square = male; circular = female; N = normal; F = feeble-minded; E = epileptic; A = alcoholic; Sx = sex offender; Illeg. = illegitimate; u. = unknown; d = died; Gt. Gr. Ch. = great-grandchildren; Desc. = descendants.



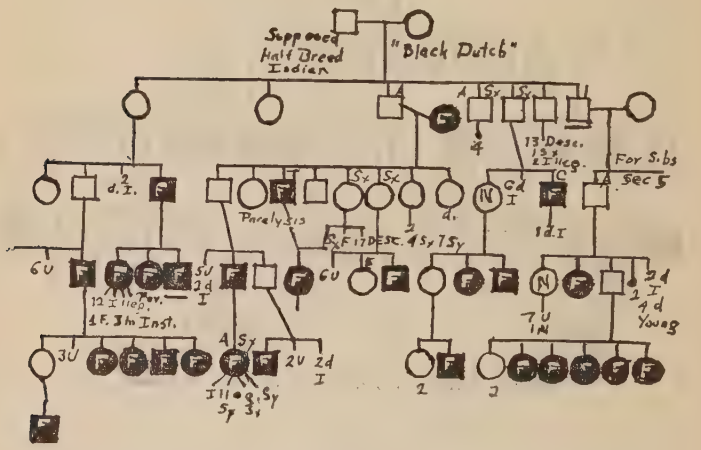
SEC. 3. FAMILY OF JANE: FATHER'S MATERNAL AUNT



SEC. 4. PATERNAL GRANDFATHER'S FAMILY



SEC. 5. MATERNAL GRANDFATHER'S FAMILY



SEC. 6. MATERNAL GREAT-GREAT-GRANDMOTHER'S FAMILY

SECONDARY TYPES OF MENTAL DEFICIENCY[1]

BY DR. L. S. HOLLINGWORTH

A Small Percentage of Mental Deficiency Is Due to Disease of the Nervous System. As we have already stated, research points to the conclusion that approximately 90 percent of the mentally subnormal are the products of inferior germ-plasm. The remainder are the victims of organic causes, and are in a true sense pathological cases. In such cases the mental deficiency is said to be *secondary,* meaning that it depends on and is a consequence of some underlying misfortune to the nervous tissue, but for which the child would have been of normal intelligence. Since the nervous system is the physiological mechanism fundamental to the psychological life, destruction or disease of its elements may result in psychological abnormalities. In the case of young children, disease of the nervous system may result in failure to develop intellectually. These are the true cases of arrested development, previously mentioned, and to be described here in some detail.

Syphilis. This disease is directly responsible for a smaller proportion of mental deficiency in children than was formerly supposed. No doubt this is due to the fact that syphilis causes sterility, abortion, and infant mortality, so that few offspring of syphilitic parents live to show mental deficiency. Syphilis is an organic disease, to which various tissues of the body are susceptible, the nervous tissue among them. If it attacks the nervous tissue of a young child, the typical result is mental deficiency. If it attacks the nervous tissue of an adult, the typical results are ataxia, intellectual deterioration, general paresis.

[1] Reprinted from *The Psychology of Subnormal Children,* by courtesy of the author and the publishers, The Macmillan Company.

Many children whose mental deficiency is due to syphilis deteriorate as they grow older, and follow the ordinary course of general paresis. They are then classified under the concept of *juvenile paresis*. The mental condition is not recoverable, though treatment ordinarily given in cases of syphilis is often effective in allaying active physical symptoms.

There are certain typical clinical features which characterize these children. The bridge of the nose is often lacking, there being merely a flat space between the eyes. In many cases the incisors are pegshaped, and notched on the edge, being termed "Hutchinson's teeth." The reflexes are in the majority of cases disturbed. There is a positive reaction in the Wassermann test of the blood.

Ductless Glands. It is well known that mental deficiency may result from malfunctioning of the thyroid gland. If during the years of growth this gland does not secrete its product into the system, the result is a child showing the following characteristics: stunted physical growth, spade-shaped hands and feet, legs short and bowed, a broad nose, a thick, coarse tongue, and a sallow, parchment-colored skin, which is dry, rough, and so redundant that it wrinkles on the face and scalp. The *tout ensemble* gives us a gnome-like little creature easily recognized for what he is by one who has seen many cases so affected.

These children are called *cretins*. The specific medicinal treatment is thyroid extract, and if the case is diagnosed in the first year of life, and treated regularly and persistently during life, the individual may in some case approximate normal development. In other cases no effect of the treatment can be noted. What the result of treatment will be in any given case is, therefore, unpredictable. The most common result seems to be that there ensues improvement in both mental and physical condition, even in cases neglected beyond infancy. Treatment is sometimes conducted surgically, by the transplantation of a thyroid gland from the neck of an animal to the body of the affected child. Favorable results have been reported from such operations, but in any given case the outcome is unpredictable.

Cretins differ widely with respect to intelligence. Some

never develop above a mental level of three years. Others approximate normality, both mentally and physically. The present writer knows of one case, that of a girl of seventeen, who was sufficiently intelligent to hold a position at simple, routine clerical work in an office, and yet in whose case a diagnosis of cretinism was made after consultation among several competent specialists, on the basis of the clinical features presented. The symptoms were mild but typical. The physique was stunted, the extremities were blunt and spade-like, the skin was sallow, with a tendency to be redundant, there was a history of slow development, and the physiological changes normal at adolescence had not taken place. This case illustrates the range of severity in cretinism.

The principles underlying the education of cretins are the same as in mental deficiency in general, except for the fact that they are especially characterized by poor motor control. Their gait is ungainly, they manage their bodies poorly, and are not as near the norms as are ordinary feeble-minded children in ability to make eye-hand co-ordinations. Thus on the whole they will not be very well adapted to manual training. . . .

Abnormal Growths in the Brain. Tuberous or nodular growths in the brain tissue may cause a child to be mentally defective. If these are present, convulsions, headache, twitching, tremor, paralysis, and progressive deterioration, one or all, are symptomatic. The treatment is surgical, but a favorable outcome is to be expected in rare cases only.

Hydrocephalus. Hydrocephalus is a condition in which there is an accumulation of cerebro-spinal fluid within the ventricles of the brain, sometimes amounting to several pints. This fluid exerts pressure upon the brain tissue, and also upon the skull, the sutures of which often become quite widely spread. These children, therefore, usually have very large heads, though in rare instances where the bones of the skull have united prematurely, expansion of the cranium may not be possible, in which case convulsions are frequent, followed by early death.

The course of hydrocephalus is unpredictable. It may

progress, and end in death during childhood; it may become arrested spontaneously; or it may be amenable to periodic surgical treatment, which consists in drawing off the excess fluid. In nearly all cases there is some degree of mental deficiency. Mild cases are occasionally seen in school, though the majority are easily recognized as proper subjects for hospital or institutional care. . . .

Injury to the Cranium, Involving the Brain. Severe injury to the head, in which the skull is fractured, and the brain is involved, may result in arrest of mental development, if it occurs in a young child. Even though the skull remain intact, it is possible to bring about the catastrophe if the injury is of such a nature as to produce hemorrhage within the brain.

Prolonged pressure on the head during the process of birth may work such injury. Paralysis of one or more limbs is a very common feature of such cases. Motor control is poor, and not infrequently the child grows up subject to convulsions. Such a condition due to pressure during birth is called Little's Disease, for the physician who originally described it. Mental deficiency may, but does not invariably, accompany the paralysis, and other manifestations. Since the child suffering from Little's Disease is a cripple, his instruction is often carried on privately, rather than as a member of a school group.

Injury to the head sustained after birth, during the years of childhood, may also interfere with mental growth. Only very severe accidents are, however, to be considered here, such as are followed by hemorrhage from nose or mouth, loss of consciousness, fracture, vomiting, a change in temperature, convulsions, or paralysis. Nearly all children "bump their heads," yet continue to follow out the course of normal development.

It is true that children who are mentally deficient by original nature fall more frequently and have more accidents than do normal children, simply because they are not so able to guard against common dangers. Thus "falling down," "hitting the head," and such accidents are very often alleged by parents to be the cause of their offspring's defects. In the majority of cases it will be found that

where a fall is the cause given, cause and effect have been confused; that the child is not defective because he fell, but fell because he is defective.

These Causes May Act on Any Degree of Native Intelligence. Accident and disease, such as we have touched upon here, may degrade to a lower level *any* degree of intelligence. They may degrade a genius, a mediocrity, or a moron to the status of an idiot or an imbecile. They may also attack children originally idiotic or imbecile. They occur without reference to the degree of intelligence potential in the germ-plasm. The opinion has been put forth by a few specialists in the field that children of neuropathic ancestry are more likely to suffer from organic diseases of the nervous system than are children in whose ancestry there is no neuropathic strain. This has never been established by figures scientifically collected. If true, it might mean that the number of really secondary cases is even smaller than at present estimated.

[Elsewhere in Dr. Hollingworth's book she describes those feeble-minded types whose heads are remarkably small, the *microcephalics;* and also those who, though of white parents, show a curious resemblance to the Mongolian race, which leads them to be called *Mongolians.*—Ed.]

IDIOTS SAVANTS[1]

BY DR. A. F. TREDGOLD

Gottfried Mind was a cretin imbecile who was born at Berne in 1768, and died in the same city at the age of forty-six years. At an early age he showed considerable talent for drawing, and as it was obvious that he would never be able to earn his living in any ordinary occupation, his father's employer interested himself in providing young Gottfried with some training. He could neither read nor write, he had no idea of the value of money, his hands were remarkable for their large size and roughness, and his general appearance was so obviously indicative of mental defect that his walks through the city were usually to the accompaniment of a crowd of jeering children. In spite of all this his drawings and water-color sketches of not only cats, but of deer, rabbits, bears, and groups of children were so marvelously lifelike and so skillfully executed that he acquired a European fame. One of his pictures, indeed, of a cat and kittens was purchased by King George IV.

Under the heading of motor we may also describe those cases possessing, if not the gift of tongues, at all events an extraordinary capacity for reproducing spoken words. Dr. Martin W. Barr describes an epileptic idiot, aged twenty-two years, who, in spite of the most careful teaching, could learn neither to read nor to write, although he was able to perform small domestic duties. Spontaneously he hardly spoke at all, and then only short disconnected words or the simplest sentences; but he had an extraordinary capacity for repeating fluently and with proper intonation everything said to him whether in his mother-tongue or in such languages as Greek, Japanese, Danish, Spanish, etc. Prob-

[1] From *Mental Deficiency* (4th ed.). Reprinted by courtesy of the author and of the publishers, William Wood and Co.

ably those cases in which an imbecile will reel off cantos of poetry verbatim also belong in this category.

In a considerable proportion of these idiots savants the gift is one of memory in some form or other, and of this many interesting and remarkable examples have been described. . . . Dr. Forbes Winslow mentions the case of a man who could remember "the day when every person had been buried in the parish for thirty-five years, and could repeat with unvarying accuracy the name and age of the deceased, and the mourners at the funeral. But he was a complete fool. Out of the line of burials he had not one idea, could not give an intelligible reply to a single question, nor be trusted to feed himself."

Other cases show the existence of this phenomenal memory in its simplest automatic form. Thus, there are many idiots who cannot speak a single word, and yet can hum a tune, which they have only heard once, with perfect accuracy. Other aments will reel off poetry almost *ad infinitum,* yet without any understanding of the sense of what they are saying, or even of the meaning of the words.

A still more interesting case is described by Dr. L. Lotte of Armentières. It is that of a young man named Fleury, an inmate of the asylum, who was completely blind from ophthalmia neonatorum, but who developed the faculty of calculating to a degree little short of marvelous. For instance, he could give the square root of any number running into four figures in an average of four seconds, and the cube root of any number running into six figures in six seconds. When he was asked how many grains of corn there would be in any one of 64 boxes, with 1 in the first, 2 in the second, 4 in the third, 8 in the fourth, and so on, he gave the answers for the fourteenth (8,192), for the eighteenth (131,072) and the twenty-fourth (8,388,608) instantaneously, and he gave the figures of the forty-eighth box (140,737,488,355,328) in six seconds. He also gave the total in all the 64 boxes correctly (18,446,734,073,709,551,615) in forty-five seconds.

We may conclude this chapter on idiots savants with an account of the following extremely interesting case:

THE GENIUS OF EARLSWOOD ASYLUM

From the year 1850 to 1916 there was resident in Earlswood Asylum a patient who justly earned this title, and whose skill in drawing, invention, and mechanical dexterity is certainly unequaled by an inmate of any similar institution in existence. When I saw him at the age of seventy-eight years he still continued to be actively engaged in his workshop. . . .

J. H. Pullen was admitted to Earlswood Asylum at the age of fifteen years. On admission he was found to be active and well grown . . . but his speech was imperfect and he was *very deaf*. He was put to work in the carpenter's shop, and soon became an expert craftsman. It was clear, moreover, that he possessed a capacity for initiation, imagination, resource, and attention far above the other inmates, and in consequence he was allowed considerable liberty of action and freedom to follow his own bent. The result, after sixty years, is to be seen in the fifty to sixty crayon drawings, the carvings in ivory and wood, and the wonderful models of ships and the like, which to-day adorn the walls and fill the two large workrooms placed at his disposal in Earlswood Asylum. . . .

Pullen designed and drew a pictorial history of his life which shows his chief occupations between the years 1841 and 1873.

One of the most wonderful of his works, and one of which he was the most proud, is the model of a steamship which he named the *Great Eastern*. This, I think, he rightly regarded as his magnum opus, and it attracted universal admiration at the Fisheries Exhibition, where it was shown in the year 1883. It took him three years and three months to complete, and every detail, including brass anchors, screw, pulley-blocks, and copper paddles, were actually made by the patient from careful drawings, which he prepared beforehand. The planks of this leviathan are fixed to the ribs by wooden pins to the number of nearly a million and a quarter. All of these were made by Pullen in a special instrument, which in turn he also planned and made. He also devised and executed a strong carriage on four

wheels for the conveyance of the ship. The model is 10 feet long, 18⅝ inches wide, and 13⅝ inches in depth. It contains 5,585 copper rivets, and there are thirteen lifeboats hoisted on complete davits, each of which is a perfectly finished model. It is fitted with paddles, screw, and engines, and it contains state cabins, which are decorated and furnished with chairs, tables, beds, and bunks. In fact, the whole thing is complete to the most minute detail, and will bear the closest inspection. He also invented and attached an arrangement of pulleys by which the whole upper deck may be raised so as to show the parts below. I believe that when first put into water the huge model capsized, but that has since been remedied. It is perhaps hardly to be expected that a person with no knowledge of practical boat-building should succeed in making a vessel that would be really navigable, but as a highly finished model it is unmatched in its completeness.

One of his latest pieces of work was the representation of a monstrous human form about 13 feet high. This black-bearded, terrible-looking figure is armed with a gigantic sword, and can be made to perform a variety of movements, such as opening and shutting the mouth and eyes, protruding the tongue, rotating the head, raising the arms, etc., by means of a most elaborate internal mechanism. It is calculated to strike terror into the heart of any juvenile beholder. Of this, with the White Knight, he might truly have said, "It's my own invention."

Other productions include bookcases, chairs, tables, work-benches, picture-frames, and the like; in fact, the list of his work during the sixty-six years he was in the asylum would alone fill several pages of this book.

In disposition Pullen was usually quiet, well-behaved, and good-tempered, and he seemed to be perfectly happy so long as he was allowed to work out his own ideas when and how he pleased. He was intolerant of supervision, inclined to be suspicious of strangers, and easily affronted by injudicious busybodies. At times he got a little out of hand, and if denied requests which were quite unreasonable was apt to become sulky and passionate. On one occasion he threatened to blow up the place because a request

had been refused, and it is quite likely that he would have attempted to do so had he not been mollified. On another occasion he did actually partially wreck his workshop in a fit of passion. Many years ago there was a steward of the asylum to whom Pullen took a violent dislike, and he spent many days planning his destruction. This culminated in the erection over the door of a most diabolical instrument, which was intended to guillotine the unfortunate officer, and there is not the slightest doubt that it would have done so had it not gone off a fraction of a second too late.

He once became enamored of a female whom he had chanced to meet outside the asylum. Nothing would satisfy him but that he should have his discharge and be allowed to marry her. He moped about, utterly refused to do any work or to listen to argument or persuasion, and it became clear that the position was critical. A happy inspiration occurred to a member of the committee, and a gorgeous naval uniform, resplendent in blue and gold, was procured. Pullen was invited into the board-room and informed that his case had been carefully considered, and that it had been decided to accede to his request. At the same time it was pointed out to him that the committee would be exceedingly sorry to lose his valuable services, and that, if he would reconsider the matter, they would, as an alternative, grant him a commission as Admiral in the Navy. The uniform was then shown to him as an earnest of their intention. This was too much for Pullen; he took the uniform, and never afterwards alluded to the subject of marriage. This uniform he usually donned on ceremonial occasions.

A note in the case-book describes him as "the quintessence of self-conceit," and a consuming vanity and almost overwhelming sense of his own cleverness and importance are very marked characteristics. Whilst showing me his handiwork he frequently stopped to pat his head and say, "Very clever"; and when I produced a tape-measure and asked permission to ascertain the extent of his cranial capacity he was delighted, and evidently regarded me as a very sensible person. At the same time, in spite of his childish egotism, he was by no means deficient in some power of looking after himself, and on several occasions he was

found selling privately and for his own advantage little articles he had made. Many of his works were carried out under the real or pretended idea that he had a commission for them at a contract price.

INSANITY

(The Psychoses)

A MIND THAT FOUND ITSELF[1]

BY CLIFFORD W. BEERS

Considering the state of my mind and my inability at that time to appreciate the enormity of such an end as I half contemplated, my suicidal purpose was not entirely selfish. That I had never seriously contemplated suicide is proved by the fact that I had not provided myself with the means of accomplishing it, despite my habit, which has long been remarked by my friends, of preparing for unlikely contingencies. So far as I had the control of my faculties, it must be admitted that I deliberated; but, strictly speaking, the rash act which followed cannot correctly be called an attempt at suicide—for how can a man who is not himself kill himself?

Soon my disordered brain was busy with schemes for death. I distinctly remember one which included a row on Lake Whitney, near New Haven. This I intended to take in the most unstable boat obtainable. Such a craft could be easily upset, and I should so bequeath to relatives and friends a sufficient number of reasonable doubts to rob my death of the usual stigma. I also remember searching for some deadly drug which I hoped to find about the house. But the quantity and quality of what I found was not such as I dared to trust. I then thought of severing my jugular vein, even going so far as to test against my throat the edge of a razor which, after the deadly impulse first asserted itself, I had secreted in a convenient place. I really wished to die, but so uncertain and bloody a method did not appeal to me. Nevertheless, had I felt sure that in my

[1] From *A Mind that Found Itself,* an autobiography by Clifford W. Beers, founder and secretary of The National Committee for Mental Hygiene, New York City. Fifth edition, revised October, 1921. Reprinted by courtesy of the author and of the publishers, Doubleday, Doran and Company.

tremulous frenzy I could accomplish the act with skillful dispatch, I should at once have ended my troubles.

My imaginary attacks were now recurring with distracting frequency, and I was in constant fear of discovery. During these three or four days I slept scarcely at all—even the medicine given to induce sleep having little effect. Though inwardly frenzied, I gave no outward sign of my condition. Most of the time I remained quietly in bed. I spoke but seldom. I had practically, though not entirely, lost the power of speech; but my almost unbroken silence aroused no suspicions as to the seriousness of my plight.

By a process of elimination, all suicidal methods but one had at last been put aside. On that one my mind now centered. My room was on the fourth floor of a house—one of a block of five—in which my parents lived. The house stood several feet back from the street. The sills of my windows were a little more than thirty feet above the ground. Under one was a flag pavement, extending from the house to the front gate. Under the other was a rectangular coal-hole covered with an iron grating. This was surrounded by flagging over a foot in width; and connecting it and the pavement proper, was another flag. So that all along the front of the house, stone or iron filled a space at no point less than two feet in width. It required little calculation to determine how slight the chance of surviving a fall from either of these windows.

About dawn I arose. Stealthily I approached the window, pushed open the blinds, and looked out—and down. Then I closed the blinds as noiselessly as possible and crept back to bed: I had not yet become so irresponsible that I dared to take the leap. Scarcely had I pulled up the covering when a watchful relative entered my room, drawn thither perhaps by that protecting prescience which love inspires. I thought her words revealed a suspicion that she had heard me at the window, but speechless as I was I had enough speech to deceive her. For, of what account are Truth and Love when Life itself has ceased to seem desirable?

The dawn soon hid itself in the brilliancy of a perfect June day. Never had I seen a brighter—to look at; never a

darker—to live through—or a better to die upon. Its very perfection and the songs of the robins, which at that season were plentiful in the neighborhood, served but to increase my despair and make me the more willing to die. As the day wore on my anguish became more intense, but I managed to mislead those about me by uttering a word now and then, and feigning to read a newspaper, which to me, however, appeared an unintelligible jumble of type. My brain was in a ferment. It felt as if pricked by a million needles at white heat. My whole body felt as though it would be torn apart by the terrific nervous strain under which I labored.

Shortly after noon, dinner having been served, my mother entered the room and asked me if she should bring me some dessert. I assented. It was not that I cared for the dessert; I had no appetite. I wished to get her out of the room, for I believed myself to be on the verge of another attack. She left at once. I knew that in two or three minutes she would return. The crisis seemed at hand. It was now or never for liberation. She had probably descended one of three flights of stairs when, with the mad desire to dash my brains out on the pavement below, I rushed to that window which was directly over the flag walk. Providence must have guided my movements, for in some otherwise unaccountable way, on the very point of hurling myself out bodily, I chose to drop feet foremost instead. With my fingers I clung for a moment to the sill. Then I let go. In falling my body turned so as to bring my right side toward the building. I struck the ground a little more than two feet from the foundation of the house, and at least three to the left of the point from which I started. Missing the stone pavement by not more than three or four inches, I struck on comparatively soft earth. My position must have been almost upright, for both heels struck the ground squarely. The concussion slightly crushed one heel bone and broke most of the small bones in the arch of each foot, but there was no mutilation of the flesh. As my feet struck the ground my right hand struck hard against the front of the house, and it is probable that these three points of contact, dividing the force of the shock, prevented my

back from being broken. As it was, it narrowly escaped a fracture and, for several weeks afterward, it felt as if powdered glass had been substituted for cartilage between the vertebræ.

I did not lose consciousness even for a second, and the demoniacal dread, which had possessed me from June, 1894, until this fall to earth just six years later, was dispelled the instant I struck the ground. At no time since have I experienced one of my imaginary attacks; nor has my mind even for a moment entertained such an idea. The little demon which had tortured me relentlessly for so many years evidently lacked the stamina which I must have had to survive the shock of my suddenly arrested flight through space. That the very delusion which drove me to a death-loving desperation should so suddenly vanish, would seem to indicate that many a suicide might be averted if the person contemplating it could find the proper assistance when such a crisis impends.

It was squarely in front of the dining-room window that I fell, and those at dinner were, of course, startled. It took them a second or two to realize what had happened. Then my younger brother rushed out, and with others carried me into the house. Naturally that dinner was permanently interrupted. A mattress was placed on the floor of the dining-room and I on that, suffering intensely. I said little, but what I said was significant. "I thought I had epilepsy!" was my first remark; and several times I said, "I wish it was over!" For I believed that my death was only a question of hours. To the doctors, who soon arrived, I said, "My back is broken!"—raising myself slightly, however, as I said so.

An ambulance was summoned and I was placed in it. Because of the nature of my injuries it had to proceed slowly. The trip of a mile and a half seemed interminable, but finally I arrived at Grace Hospital and was placed in a room which soon became a chamber of torture. It was on the second floor; and the first object to engage my attention and stir my imagination was a man who appeared outside my window and placed in position several heavy iron bars. These were, it seems, thought necessary for my pro-

tection, but at that time no such idea occurred to me. My mind was in a delusional state, ready and eager to seize upon any external stimulus as a pretext for its wild inventions, and that barred window started a terrible train of delusions which persisted for seven hundred and ninety-eight days. During that period my mind imprisoned both mind and body in a dungeon than which none was ever more secure.

Knowing that those who attempt suicide are usually placed under arrest, I believed myself under legal restraint. I imagined that at any moment I might be taken to court to face some charge lodged against me by the local police. Every act of those about me seemed to be a part of what, in police parlance, is commonly called the "Third Degree." The hot poultices placed upon my feet and ankles threw me into a profuse perspiration, and my very active association of mad ideas convinced me that I was being "sweated" —another police term which I had often seen in the newspapers. I inferred that this third-degree sweating process was being inflicted in order to extort some kind of a confession, though what my captors wished me to confess I could not for my life imagine. As I was really in a state of delirium, with high fever, I had an insatiable thirst. The only liquids given me were hot saline solutions. Though there was good reason for administering these, I believed they were designed for no other purpose than to increase my sufferings, as a part of the same inquisitorial process. But had a confession been due, I could hardly have made it, for that part of my brain which controls the power of speech was seriously affected, and was soon to be further disabled by my ungovernable thoughts. Only an occasional word did I utter.

Certain hallucinations of hearing, or "false voices," added to my torture. Within my range of hearing, but beyond the reach of my understanding, there was a hellish vocal hum. Now and then I would recognize the subdued voice of a friend; now and then I would hear the voices of some I believed were not friends. All these referred to me and uttered what I could not clearly distinguish, but knew must be imprecations. Ghostly rappings on the walls

and ceiling of my room punctuated unintelligible mumblings of invisible persecutors.

I remember distinctly my delusion of the following day—Sunday. I seemed to be no longer in the hospital. In some mysterious way I had been spirited aboard a huge ocean steamship. I first discovered this when the ship was in mid-ocean. The day was clear, the sea apparently calm, but for all that, the ship was slowly sinking. And it was I, of course, who had created the situation which must turn out fatally for all, unless the coast of Europe could be reached before the water in the hold should extinguish the fires. How had this peril overtaken us? Simply enough: During the night I had in some way—a way still unknown to me—opened a port-hole below the water line, and those in charge of the vessel seemed powerless to close it. Every now and then I could hear parts of the ship give way under the strain. I could hear the air hiss and whistle spitefully under the resistless impact of the invading waters; I could hear the crashing of timbers as partitions were wrecked; and as the water rushed in at one place I could see, at another, scores of helpless passengers swept overboard into the sea—my unintended victims. I believed that I, too, might at any moment be swept away. That I was not thrown into the sea by vengeful fellow-passengers was, I thought, due to their desire to keep me alive until, if possible, land should be reached, when a more painful death could be inflicted upon me.

While aboard my phantom-ship I managed in some way to establish an electric railway system; and the trolley cars which passed the hospital were soon running along the deck of my ocean-liner, carrying passengers from the places of peril to what seemed places of comparative safety at the bow. Every time I heard a car pass the hospital one of mine went clanging along the ship's deck.

My feverish imaginings were no less remarkable than the external stimuli which excited them. As I have since ascertained, there were just outside my room an elevator and near it a speaking-tube. Whenever the speaking-tube was used from another part of the building, the summoning whistle conveyed to my mind the idea of the exhaustion of

air in a ship-compartment, and the opening and shutting of the elevator door completed the illusion of a ship fast going to pieces. But the ship my mind was on never reached any shore, nor did she sink. Like a mirage she vanished, and again I found myself safe in my bed at the hospital. "Safe," did I say? Scarcely that—for deliverance from one impending disaster simply meant immediate precipitation to another.

My delirium gradually subsided, and four or five days after the 23d the doctors were able to set my broken bones. The operation suggested new delusions. Shortly before the adjustment of the plaster casts, my legs, for obvious reason, were shaved from shin to calf. This unusual tonsorial operation I read for a sign of degradation—associating it with what I had heard of the treatment of murderers and with similar customs in barbarous countries. It was about this time also that strips of court-plaster, in the form of a cross, were placed on my brow, which had been slightly scratched in my fall, and this, of course, I interpreted as a brand of infamy.

Had my health been good, I should at this time have been participating in the Triennial of my class at Yale. Indeed, I was a member of the Triennial Committee and though, when I left New York on June 15th, I had been feeling terribly ill, I had then hoped to take part in the celebration. The class reunions were held on Tuesday, June 26th—three days after my collapse. Those familiar with Yale customs know that the Harvard baseball game is one of the chief events of the commencement season. Headed by brass bands, all the classes whose reunions fall in the same year, march to the Yale Athletic Field to see the game and renew their youth—using up as much vigor in one delirious day as would insure a ripe old age if less prodigally expended. These classes with other vociferating enthusiasts, march through West Chapel Street—the most direct route from the Campus to the Field. It is upon this line of march that Grace Hospital is situated, and I knew that on the day of the game the Yale thousands would pass the scene of my incarceration.

I have endured so many days of the most exquisite tor-

ture that I hesitate to distinguish among them by degrees; each deserves its own unique place, even as a Saint's Day on the calendar of an olden Spanish inquisitor. But, if the palm is to be awarded to any, June 26th, 1900, perhaps has the first claim.

My state of mind at this time might be pictured thus: The criminal charge of attempted suicide stood against me on June 23rd. By the 26th many other and worse charges had accumulated. The public believed me the most despicable member of my race. The papers were filled with accounts of my misdeeds. The thousands of collegians gathered in the city, many of whom I knew personally, loathed the very thought that a Yale man should so disgrace his Alma Mater. And when they approached the hospital on their way to the Athletic Field, I concluded that it was their intention to take me from my bed, drag me to the lawn, and there tear me limb from limb. Few incidents during my unhappiest years are more vividly or circumstantially impressed upon my memory. The fear, to be sure, was absurd, but in the lurid lexicon of Unreason there is no such word as "absurd." Believing, as I did, that I had dishonored Yale and forfeited the privilege of being numbered among her sons, it was not surprising that the college cheers which filled the air that afternoon, and in which only a few days earlier I had hoped to join, struck terror to my heart.

Naturally I was suspicious of all about me, and became more so each day. But not until about a month later did I refuse to recognize my relatives. While I was at Grace Hospital my father and eldest brother called almost every day to see me, and, though I said little, I still accepted them in their proper characters. I remember well a conversation one morning with my father. The words I uttered were few, but full of meaning. Shortly before this time my death had been momentarily expected. I still believed that I was surely about to die as a result of my injuries, and I wished in some way to let my father know that, despite my apparently ignominious end, I appreciated all that he had done for me during my life. Few men, I believe, ever had a more painful time in expressing their feelings than I had

on that occasion. I had but little control over my mind, and my power of speech was impaired. My father sat beside my bed. Looking up at him, I said, "You have been a good father to me."

"I have always tried to be," was his characteristic reply.

After the broken bones had been set, and the first effects of the severe shock I had sustained had worn off, I began to gain strength. About the third week I was able to sit up and was occasionally taken out of doors. But each day, and especially during the hours of the night, my delusions increased in force and variety. The world was fast becoming to me a stage on which every human being within the range of my senses seemed to be playing a part, and that a part which would lead not only to my destruction (for which I cared little), but also to the ruin of all with whom I had ever come in contact. In the month of July several thunder-storms occurred. To me the thunder was "stage" thunder, the lightning, man-made, and the accompanying rain due to some clever contrivance of my persecutors. There was a chapel connected with the hospital—or at least a room where religious services were held every Sunday. To me the hymns were funeral dirges; and the mumbled prayers, faintly audible, were in behalf of every sufferer in the world but one.

It was my eldest brother who looked after my care and interests during my entire illness. Toward the end of July, he informed me that I was to be taken home again. I must have given him an incredulous look, for he said, "Don't you think we can take you home? Well, we can and will." Believing myself in the hands of the police I did not see how that was possible. Nor did I have any desire to return. That a man who had disgraced his family should again enter his old home, and expect his relatives to treat him as though nothing were changed, was a thought against which my soul rebelled; and, when the day came for my return, I fought my brother and the doctor feebly as they lifted me from the bed. But I soon submitted, was placed in a carriage, and driven to the house I had left a month earlier.

For a few hours my mind was calmer than it had been. But my new-found ease was soon dispelled by the appear-

ance of a nurse—one of several who had attended me at the hospital. Though at home and surrounded by relatives I jumped at the conclusion that I was still under police surveillance. At my request my brother had promised not to engage any nurse who had been in attendance at the hospital. The difficulty of procuring any other led him to disregard my request, which at the time he held simply as a whim. But he did not disregard it entirely, for the nurse selected had merely acted as a substitute on one occasion, and then only for about an hour. This was long enough, though, for my memory to record her image.

Finding myself still under surveillance, I soon jumped to a second conclusion, namely, that this was no brother of mine at all. He instantly appeared in the light of a sinister double, acting as a detective. After that I refused absolutely to speak to him again, and this repudiation I extended to all other relatives, friends, and acquaintances. If the man I had accepted as my brother was spurious, so was everybody—that was my deduction. For more than two years I was without relatives or friends, in fact, without a world, except that one created by my own mind from the chaos that reigned within it.

While I was at Grace Hospital it was my sense of hearing which was the most disturbed. Soon after I was placed in my room at home *all* of my senses became perverted. I still heard the "false voices"—which were doubly false, for Truth no longer existed. The tricks played upon me by my senses of taste, touch, smell, and sight were the source of great mental anguish. None of my food had its usual flavor. This soon led to that common delusion that some of it contained poison—not deadly poison, for I knew that my enemies hated me too much to allow me the boon of death, but poison sufficient to aggravate my discomfort. At breakfast I had cantaloupe, liberally sprinkled with salt. The salt seemed to pucker my mouth, and I believed it to be powdered alum. Usually, with my supper, sliced peaches were served. Though there was sugar on the peaches, salt would have done as well. Salt, sugar, and powdered alum had become the same to me.

Familiar materials had acquired a different "feel." In

the dark, the bed sheets at times seemed like silk. As I had not been born with a golden spoon in my mouth, or other accessories of a useless luxury, I believed the detectives had provided these silken sheets for some hostile purpose of their own. What the purpose was I could not divine, and my very inability to arrive at a satisfactory conclusion stimulated my brain to the assembling of disturbing thoughts in an almost endless train.

Imaginary breezes struck my face, gentle, but not welcome, most of them from parts of the room where currents of air could not possibly originate. They seemed to come from cracks in the walls and ceiling and annoyed me exceedingly. I thought them in some way related to that ancient method of torture by which water is allowed to strike the victim's forehead, a drop at a time, until death releases him. For a while my sense of smell added to my troubles. The odor of burning human flesh and other pestilential fumes seemed to assail me.

My sense of sight was subjected to many weird and uncanny effects. Phantasmagoric visions made their visitations throughout the night, for a time with such regularity that I used to await their coming with a certain restrained curiosity. I was not entirely unaware that something was ailing with my mind. Yet these illusions of sight I took for the work of detectives, who sat up nights racking their brains in order to rack and utterly wreck my own with a cruel and unfair "Third Degree."

Handwriting on the wall has ever struck terror to the hearts of even sane men. I remember as one of my most unpleasant experiences that I began to see handwriting on the sheets of my bed, staring me in the face, and not me alone, but also the spurious relatives who often stood or sat near me. On each fresh sheet placed over me I would soon begin to see words, sentences, and signatures, all in my own handwriting. Yet I could not decipher any of the words, and this fact dismayed me, for I firmly believed that those who stood about me could read them all and found them to be incriminating evidence.

I imagined that these vision-like effects, with few exceptions, were produced by a magic-lantern, controlled by

some of my myriad persecutors. The lantern was rather a cinematographic contrivance. Moving pictures, often brilliantly colored, were thrown on the ceiling of my room and sometimes on the sheets of my bed. Human bodies, dismembered and gory, were one of the most common of these. All this may have been due to the fact that, as a boy, I had fed my imagination on the sensational news of the day as presented in the public press. Despite the heavy penalty which I now paid for thus loading my mind, I believe this unwise indulgence gave a breadth and variety to my peculiar psychological experience which it otherwise would have lacked. For with an insane ingenuity I managed to connect myself with almost every crime of importance of which I had ever read.

Dismembered human bodies were not alone my bedfellows at this time. I remember one vision of vivid beauty. Swarms of butterflies and large and gorgeous moths appeared on the sheets. I wished that the usually unkind operator would continue to show these pretty creatures. Another pleasing vision appeared about twilight several days in succession. I can trace it directly to impressions gained in early childhood. The quaint pictures of Kate Greenaway—little children in attractive dress, playing in old-fashioned gardens—would float through space just outside my windows. The pictures were always accompanied by the gleeful shouts of real children in the neighborhood, who, before being sent to bed by watchful parents, devoted the last hour of the day to play. It doubtless was their shouts that stirred my memories of childhood and brought forth these pictures. In my chamber of intermittent horrors and momentary delights uncanny occurrences were frequent. I believed there was some one who at fall of night secreted himself under my bed. That in itself was not peculiar, as sane persons, at one time or another, are troubled by that same notion. But *my* bed-fellow—under the bed—was a detective; and he spent most of his time during the night pressing pieces of ice against my injured heels, to precipitate, as I thought, my overdue confession.

The piece of ice in the pitcher of water which usually stood on the table sometimes clinked against the pitcher's

side as its center of gravity shifted through melting. It was many days before I reasoned out the cause of this sound; and until I did I supposed it to be produced by some mechanical device resorted to by the detectives for a purpose. Thus the most trifling occurrence assumed for me vast significance. . . .

THE PSYCHOLOGY OF INSANITY[1]

BY DR. BERNARD HART

. . . We shall at once observe that many of these symptoms are only exaggerated forms of mental processes with which we are all acquainted. The symptoms described as excitement and depression, for example, only differ from the similar conditions seen in normal men by their intensity and by their seeming lack of any adequate cause. Similarly, the affective disturbance referred to as "emotional dementia" is but an exaggeration of the apathy and lack of volition so frequently met with in everyday life.

Other of the affective symptoms, however, seem to be further removed from the normal—the emotions are not only exaggerated, but distorted and senseless. Similarly the incoherent, apparently meaningless phrases exhibited by some of our patients have but little obvious relation to the language and thought in which we find ourselves. Finally, we meet with symptoms which seem altogether strange and incomprehensible—hallucinations and delusions, for example. Here our analogies fail us altogether, and we are tempted to limit our explanation to the simple statement that the man is mad, and that is all there is to say about the matter.

> "to define true madness,
> What is't but to be nothing else but mad."

Yet we shall find as we proceed that even the most bizarre symptoms are not so very different from processes to be discovered in our own minds, and that the lunatic appears more and more like ourselves the better we are enabled to penetrate into the tortuous recesses of his spirit. . . .

[1] From *The Psychology of Insanity* (3rd ed.). Reprinted by courtesy of the author and the publishers, the Cambridge University Press.

In order that the reader may acquire some of this understanding it is necessary that he should be first introduced to a conception which plays an important part throughout the whole of abnormal psychology, that of "dissociation of consciousness." . . .

Suppose, for example, I sit at the piano and play a piece of music. If I am a sufficiently expert performer it is possible that I may at the same time be able to carry on a complex train of independent thought, let us say the solution of some problem of conduct. My mind does not under these circumstances present a uniform field of consciousness, but one divided into two parts or processes. Each of these processes requires a considerable expenditure of mental energy. The piece of music is perhaps one I have never seen before, and it has to be played with appropriate and constantly varying expression—while the problem of conduct may be similarly complicated in its character. Each of these activities is almost entirely independent of the other, yet both can be carried on at the same moment. The field of consciousness must therefore be divided into two portions, in other words a certain degree of dissociation of consciousness must be present. Similar remarks apply to many other simultaneous activities; for example, those exhibited by the skilled tradesman who plies his craft while his mind is at the same time occupied with other matters. . . .

In all these cases, however, the dissociation of consciousness is temporary, and only partial in character. Both activities are under the control of the subject, and either may be abandoned at will. In the more marked degrees of dissociation found in our patients this control no longer exists. . . .

Suppose that we engage an hysterical patient in conversation and, while his attention is thus diverted, insert a pencil between the fingers of his right hand. If a third person now whispers some question into the patient's ear, it may be possible to induce him to write answers to those questions, although he continues all the time to discuss with us some totally different subject. Under such circumstances it will be found that the patient is entirely unconscious of what his hand is doing, and is, moreover, often altogether

ignorant of the events which the writing describes. These events frequently relate to episodes in the patient's past life. . . .

The field of consciousness is divided into two distinct parts, one engaged in conversation, the other comprising the systems of ideas which are finding expression in the automatic writing. Each portion carries on complicated mental processes, and yet each is not only totally independent of the other, but totally unaware of the other's existence. The patient's mind seems, in fact, to be split into two smaller minds, engaged in two different occupations, making use of two distinct sets of memories, and without any relation whatever one to the other. Such a case, therefore, provides us with a most perfect example of dissociation of consciousness. . . .

Let us now proceed to the consideration of a type of dissociation only slightly different from that just described. We found that in the uniform stream of thought characteristic of the normal mind there was no break or gap in the continuity of ideas. However abruptly a new idea might arise in consciousness, yet it was always possible to demonstrate that the apparent gap was really bridged by some associative link. The consciousness of any given moment, moreover, was always perfectly aware of the mental processes which had taken place in the consciousness of the preceding moment. Now it is possible to imagine that this continuity in the stream of consciousness should suddenly cease to exist, that the stream should be, as it were, suddenly broken across. The content of consciousness immediately after the break would then be absolutely independent of the content of consciousness in the moment preceding the break. . . . We have here, not a dissociation of personality into two separate simultaneously present portions, but a dissociation of the consciousness of one moment from the consciousness which preceded. In the case of Irène [p. 151, this volume] the train of thought occupying the patient's mind was abruptly broken off and replaced by an entirely different set of ideas. Whatever she had been previously engaged upon, the beginning of the somnambulism was characterized by the sudden invasion into

consciousness of the ideas and memories connected with her mother's death. . . . We should find, in fact, that the continuous stream of her thought had been interrupted by the sudden appearance of a "dissociated system of ideas," which occupied the entire field of consciousness for a certain time, and then as suddenly disappeared. In such a case the continuity of transition observed in the normal mind has been replaced by an abrupt change from one train of ideas to another which has no relation to the first. . . .

The dissociated system of ideas, whose eruption into the field of consciousness is responsible for the appearance of a somnambulism, may attain to any degree of complexity and development. In the case of Irène its structure was relatively simple, and it comprised but little beyond the ideas connected with the mother's illness and death. Hence, while the somnambulism was in progress, the patient's mental life seemed narrowed down to the expression of those ideas; she was totally insusceptible to all other impressions, and incapable of adapting herself to the actual conditions of her environment. In some cases, however, the dissociated system is far more extensive and more completely developed, including within itself whole tracts of the patient's mental life. Under these circumstances the patient's behavior may be comparatively normal, and adapted to the environment, even when the dissociated system is in entire possession of the field. Such cases are not generally termed somnambulisms, although they are precisely similar to the latter in their fundamental characters, but are regarded as samples of "Double Personality." . . .

All the examples of dissociation so far given show us systems of ideas, or trains of thought, which are split off from the rest of consciousness, and which lead an independent existence. Let us now examine these examples more closely, with a view to determining exactly what we are to understand by this "splitting off" of a system of ideas. In both automatic writing and somnambulism two well-marked characters are present. Firstly, the main body of consciousness—or, as it is usually termed, the personality or *ego*—has no knowledge of the dissociated system.

Thus Irène in her normal state had no memory of the actions and ideas which had filled the period of somnambulism. Secondly, the dissociated system develops autonomously, that is to say it pursues its own course without any dependence upon the main body of consciousness. It is, in fact, altogether exempt from the control of the personality. Irène could not decide beforehand what actions should be carried out in her somnambulisms. The ideas connected with her mother's death developed as a self-contained system, over which personality could exercise no influence whatever.

The same characters distinguish the phenomenon of automatic writing. Firstly, the patient is quite unaware of what his hand is writing, or even of the fact that it is in movement. Secondly, the personality has no power to direct what the hand shall write, or to alter in any way the train of ideas which it is expressing. The question now arises whether both the characters described are to be regarded as the essential marks of a dissociated or "split off" system of ideas, or whether we may speak of dissociation when only one of these characters is present; and if only one need be present, which is to be regarded as essential—the fact that the personality is unaware of the existence of the dissociated system, or the fact that the latter develops independently and is exempt from the control of the former.

Now a little consideration will show that all cases which exhibit the first character must inevitably exhibit the second also. If the mind of a certain patient contains a system of ideas of which the personality is absolutely ignorant, then that system must obviously be independent, and exempt from the control of the personality. The first character, therefore, presupposes the second. It is, in fact, only an extreme degree of the second. All cases which display it possess not only a separated, independent, and autonomous system of ideas, but one of whose existence the personality is in addition unaware. We therefore reach the conclusion that "unawareness" is only a special example of "independence," and hence that "independence" is the more fundamental and comprehensive character. It will be

found convenient to make the term "dissociation" indicate only the fundamental character of independence, and to regard unawareness on the part of the personality merely as a special case of dissociation. We may express this position by the following definition: A system of ideas is said to be dissociated when it is divorced from the personality, and when its course and development are exempt from the control of the personality.

We are now in a position to proceed further in the examination of our patients, and to determine if there are not other symptoms than automatic writing, somnambulism, and double personality, which may be brought under this definition of dissociation. Consider, for example the case of obsessions. If we inquire of the patient . . . why she so conscientiously studies the number of every bank note which comes into her possession, she replies, "I do not know why I do so, but I simply cannot help it. Whenever I see a bank note, something forces me to examine the number. Of course I am distressed at my foolish behavior, but the impulse is absolutely uncontrollable." In other words, the sight of a bank note arouses a system of ideas, whose development the patient's personality is altogether unable to control. Whatever she may herself desire to do, this system will pursue its course until it has achieved its end, and she will be compelled to look at the number. She is, of course, perfectly aware of her action, but cannot alter it or prevent it. We have here a system of ideas which is separate from, and develops independently of, the personality, and which our definition therefore entitles us to describe as dissociated. This type of dissociation differs from that seen in automatic writing in the fact that the personality is aware of the existence of the dissociated system. The independence of the dissociated system is, however, equally evident in both.

Similar remarks hold good of the various other obsessive actions, *e.g.* "washing mania," which we have observed in certain of our patients.

It should be remarked that phenomena analogous to these latter symptoms frequently occur in the experience of every normal individual. For example, the melody which

"runs in one's head" continuously, and will not be banished, the absurd and irrelevant idea which insistently recurs to one's mind in defiance of all the laws of logic; the irresistible impulse to touch every lamp-post one passes, and so on. In all these cases, just as in those more exaggerated instances which occur in our patients, we have dissociated fragments of mind which pursue their own course without relation to the conscious aims and desires of the personality. The personality is aware of the existence of the dissociated system, but is aware of it as something outside of and foreign to itself. As the patient will frequently express it—"the idea forces itself into my mind"—"something suddenly compels me to do this action."

These obsessional cases, in which the dissociated system appears to the personality as a foreign body which has intruded itself into the mind, serve as a bridge to carry us over to yet another type of dissociation. Consider the cases . . . in which hallucinations of various kinds occur. We found, for example, a patient who constantly heard voices announcing that on account of the sins he had committed he would shortly be put to death. Now we know that these voices did not correspond to any actual reality in the external world. Although to the patient himself they seemed intensely real, to the bystander they were nothing but figments of the imagination. In other words, they existed only in the patient's mind, and were, in fact, merely a portion of his own consciousness. Strictly speaking, it would be better to say that the system of ideas in question is dissociated from the personality, and that the hallucinatory "voice" is the mode in which the dissociated system announces its existence to the personality. This splitting of the patient's consciousness into two parts, one of which talks to the other, is a frequent phenomenon in every asylum.

The conception of dissociation enables us, again, to represent more clearly to ourselves the mental state of the patient who possesses a delusion. A delusion, it will be remembered, is a false belief which is impervious to the most complete logical demonstration of its impossibility,

and unshaken by the presence of incompatible or obviously contradictory facts. Thus, if a patient believes that he is the king, it is useless to prove conclusively to him that he is wrong; he remains serenely unaffected. He is, perhaps, well acquainted with the past history of himself and his family, but it never occurs to him that the facts contained therein are incompatible with the belief that he is the son of George III. He may assure us that he is omnipotent and capable of creating a new universe, and yet the next moment he may ask plaintively to be allowed to leave the asylum, or beg for a small quantity of tobacco. This tissue of contradictions seems at first sight inexplicable and incomprehensible, but the key to the riddle is clear so soon as we realize that the patient's mind is in a state of dissociation. It no longer presents a homogeneous stream progressing in a definite direction towards a single end, but is composed of more or less isolated mental processes, each pursuing its own independent development, unaffected by the presence of its fellows. The patient believes that he is king, and he is also aware of facts which totally contradict that belief; but although both these things exist together in his mind, they are not allowed to come into contact, and each is impervious to the significance of the other. They pursue their courses in logic-tight compartments, as it were, separated by barriers through which no connecting thought of reasoning is permitted to pass. Similarly, the patient's belief is unaffected by our scientific demonstration of its impossibility. He understands perfectly each point of our reasoning, but its significance is not allowed to penetrate the compartment which contains his delusion; it glides off as water glides off a duck's back.

Although the phenomena just described are so bizarre, and so characteristically insane, yet this dissociation of the mind into logic-tight compartments is by no means confined to the population of the asylum. It is a common, and perhaps inevitable occurrence in the psychology of every human being. Our political convictions are notoriously inaccessible to argument, and we preserve the traditional beliefs of our childhood in spite of the contradictory facts constantly presented by our experience. Such phenomena

can only be explained by the existence of a certain amount of dissociation, and, though less in degree, it is precisely similar to the dissociation which permits the asylum queen to scrub the ward floor, serenely unconscious of the incongruity between her exalted rank and her menial occupation.

MANIFESTATIONS OF REPRESSED COMPLEXES

. . . It has been explained that when a complex is repressed it is thereby deprived of its normal mode of expression. That is to say, it can no longer cause its constituent ideas and emotions to enter directly into consciousness, and it can no longer cause the conscious stream to move along a course which will satisfy its own ends. These effects are produced because a certain resistance, or "censure" as it is technically termed, is opposed to the normal action of the complex. Our understanding of this conception will perhaps be assisted by the consideration of the following diagrams which must, of course, be regarded as purely schematic.

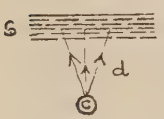


FIG. 1

FIG. 2

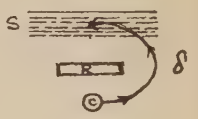


FIG. 3

Fig. 1 represents the normal action of a complex. S is the stream of consciousness, the succession of thoughts, emotions, and volitions which occupy the surface, as it were, of our minds. S corresponds, in fact, to the mind as it appears to ordinary introspection. C is a complex, and d represents the various ideas, etc., which the complex throws into the stream of consciousness so soon as it is stimulated. . . .

Fig. 2 represents the state of affairs which arises if the complex is subjected to repression. A resistance (R) is now opposed to the normal action of the complex, so that the ideas belonging to the latter can no longer be thrown directly into the conscious stream in the manner shown

in Fig. 1. Fig. 2 will, for example, illustrate the conditions present in Irène's mind during the interval between her somnambulisms. In this case C would represent the complex connected with the mother's illness and death. Owing to the presence of the resistance (R), all the ideas belonging to that complex would be absolutely cut off from the stream of consciousness, and we should have that localized loss of memory which Irène actually exhibited during the periods in question.

It was further stated in the preceding chapter that, although the repressed complex is thus deprived of its normal mode of expression, it does not thereby cease to exist. We must now add that it not only continues to exist, but that it continues to find expression, although that expression is no longer normal and direct. In the case of Irène the complex achieved expression by so interrupting the stream of consciousness that the portion of the stream in which it appeared, *i.e.* the somnambulism, was absolutely cut off from that which preceded it and from that which followed it. More generally, however, the mode of expression is less drastic than this, and is of the type shown in Fig. 3. The repressed complex cannot affect consciousness in the normal direct manner, but it nevertheless contrives to exert an influence along the devious and indirect path represented by δ. This path must be sufficiently devious and indirect to enable the complex to elude, as it were, the resistance (R), and the stronger the resistance the more indirect must the path of expression become.

The actual facts corresponding to the scheme shown in Fig. 3 will be rendered clear by the consideration of a specific instance, and for this purpose we may select the example borrowed from Dr. Jung. . . . A certain man expressed extreme annoyance at some irreproachable church bells. Investigation revealed the fact that the man and the clergyman who was attached to the church were rivals in the field of amateur poetry. Now the casual complex responsible for the phenomena evidently originated in jealousy of a successful rival. But jealousy of this kind is an emotion whose existence we are rarely ready to acknowledge, even to ourselves. In other words, it forms

a complex which is almost invariably repressed, so far as we are able to do so. A resistance is imposed which prevents the complex making its appearance in the field of consciousness. Hence the complex is compelled to express itself by some indirect path which will enable it to elude the resistance. In the present case this indirect path was provided by an unjustified criticism of the bells which were closely connected with the offending clergyman. By this means the complex found expression, while the individual was able to persuade himself that his action was due to a quite different cause. The resistance served its purpose by protecting consciousness from the direct manifestation of the unacknowledged complex, so that the conflict which would otherwise have arisen was avoided.

A similar explanation may be applied to the case . . . of the patient who was so distressed at the ill-treatment meted out to two foreigners. The causal complex was the resentment which the patient felt at the ill-treatment that he had himself received from his father. But this complex was repressed because it was incompatible with the deep affection which he entertained for his father, and because a distressing conflict would otherwise have inevitably been engendered. Hence it obtained expression in the indirect manner described, by attaching its constituent emotion to an external event connected with the real cause by a relation of superficial similarity. . . .

A complex will express itself directly when it is not subjected to repression. A repressed complex, on the other hand, can only influence the stream of consciousness along an indirect path, because of the resistance which is offered by the "censure." Owing to this resistance the manifestation must be so distorted that its real origin in the tabooed complex is no longer apparent to the individual. Hence, whenever indirect expression of a complex is observed, it may be assumed that incompatible and conflicting systems of ideas are present in the mind, and that the complex in question is subjected to some degree of repression.

Now the solution of a mental conflict by the mechanism of repression is one of the commonest refuges of the human mind. We shall find that it not only explains the

occurrence of phenomena frequently seen in everyday life, but that it also enables us to understand the genesis of many abnormal mental symptoms which are observed in the sphere of insanity. It will therefore be necessary to consider this mechanism in considerable detail.

A study of the diagrams [on p. 54 of this volume] will suggest to us that the phenomena caused by the presence of a repressed complex will be of two kinds. They will be either indirect expressions of the complex itself, or they will be phenomena due to the resistance or "censure" which forbids the complex to obtain its normal and direct expression. As a matter of fact we shall find that most of the symptoms produced by the mechanism of repression are clearly referable to one or other of these varieties. A simple example will render intelligible both the nature of the phenomena we are now considering, and the subdivision which we are seeking to establish. In certain elderly unmarried women the "sex complex," including in that term the various instincts belonging to sex, has been denied its normal outlet and has ultimately become repressed. Under these circumstances the existence of the repressed complex may be evidenced by two groups of familiar phenomena. The resistance which forbids the normal expression of the complex may appear as an exaggerated prudery; this clearly serves to conceal the objectionable complex from consciousness, and hence fulfills the function of a censure. The complex will contrive, nevertheless, to express itself in some indirect manner, *e.g.* as a morbid interest in births, marriages, and scandals.

Phenomena due to indirect expression and those ascribable to the censure will, of course, generally occur together, although in one case the first may be more prominent, in another the second. For purposes of description, however, it will be clearer to deal with the two groups separately, and we shall find it advantageous to commence with the consideration of the second group.

The essential character of the symptoms ascribable to the censure is that they assist the process of resistance, and help in the active repression of the objectionable complex. Availing ourselves of the diagrams [on p. 54 of this

volume] we may regard these symptoms as weights added to the repressing process represented by R, which further guard against any appearance of the complex in the field of consciousness. In a large number of cases they are of the type seen in the prudery example described above, the exaggerated appearance in the superficial layers of the mind of the opposite quality to that belonging to the complex in question. A familiar instance is the concealment of diffidence and social shyness by the assumption of a boisterous good fellowship. In the sphere of insanity a similar mechanism accounts for some of the manic states described. . . . In a case recorded by Dr. Devine, for example, the patient was suffering from an incurable cancer. She was at first intensely depressed, tortured by the pain accompanying the disease, and filled with gloomy forebodings concerning the future of her husband and children. Later, however, signs of excitement appeared, and finally she passed into a typical manic state, which necessitated her removal to the asylum. She was then abnormally joyous and elated, in constant movement, singing hymns and litanies, and apparently ecstatically happy. She maintained that she was now perfectly well, and that the disease had been completely cured. The psychological explanation of this case is obvious. The distressing conflict between the hopeless facts and all the patient's most cherished ambitions and desires, actually seen in the first phase of the case, had been solved by a process of repression. The facts were shut out from consciousness, and the resistance to their entry assisted by the development in consciousness of the abnormal gayety and elation which characterized the manic phase. A similar mechanism probably accounts for the condition known as spes phthisica, the astonishing cheerfulness and optimism which frequently characterize the last stages of pulmonary consumption.

Another familiar manifestation of the censure is to be found in the concealment of a gnawing sorrow by the assumption of a witty exterior. It is a common observation that a secret unhappiness often lurks beneath the sparkling witticisms of the man of jokes. Humor is, indeed, one of the great refuges of life, and the man who is sensitive but

has no humor suffers much from the bitterness of experience. By the aid of humor, experience which is unpalatable can be deprived of its real significance and treated as a joke, and thus we may be saved the sting of many a painful conflict. The extension of this principle into the field of abnormal psychology is perhaps best seen in the "drunkard's humor," which is so characteristic a feature of the chronic alcoholic. Here we find a superficial wit, consisting essentially in an inability to take anything seriously, even the gravest facts of life. The consequences of his vice, poverty, a wrecked career, the miseries of wife and children, are glossed over by the alcoholic with a pleasantry or a *bon mot,* and are not allowed to disturb his exaggerated self-complacency. In this manner he achieves a superficial peace of mind, and is saved from that remorse which constitutes the most distressing of all conflicts.

The repression of a painful complex by the exaggerated development in consciousness of the opposite quality will also enable us to understand the genesis of some obsessions. The following example will serve as a minor illustration of this process. A man who had been addicted in his boyhood to the thieving of small sums of money, developed in later life an exaggerated honesty. He would devote endless time and trouble to the payment of some trifling excess fare, and an undischarged debt was a source of unceasing worry and self-reproach. The explanation of this abnormal rectitude is evidently to be found in the mechanism we are now considering. The memory of his early lapses constituted a painful complex intensely repugnant to the man's adult consciousness. He therefore strove to banish it from his mind, and to conceal its presence by the exaggerated assumption of the opposing quality. It will be remembered that . . . this over-weighting of a particular element in consciousness was described as the essential character which defines an obsession. Such obsessions may in some cases be so persistent and pronounced as altogether to upset the mental stability of the individual, so that his behavior becomes definitely insane. A common example is "washing mania," an irresistible desire to wash the hands at every moment of the day, with an overwhelming fear of

dirt and contamination. This is often found where some morally objectionable habit is present which arouses constant remorse in the mind of the patient. The personality reacts to the complex, which it regards as morally unclean, by the symbolical assumption of an over-conscientious and exaggerated cleanliness.

In the majority of the examples hitherto considered the censure has manifested itself by the exaggerated development in consciousness of a quality which is the reverse of that present in the offending complex. It is not necessary, however, that the quality developed should always have this opposite character. Provided that it serves to conceal the complex it will efficiently carry out the repressing function for which it has been created. Cynicism, for instance, by which the individual endeavors to persuade himself that the complex or the forces which oppose it are worthless and unreal, is a common method of dealing with the insoluble conflicts of life. The artificial elation produced by alcohol, opium, and some other drugs, serves a similar purpose. The submerging of conflicts is, indeed, the chief object for which these drugs are taken, and this fact must be taken into account in any efficient attempt to deal with the alcohol question. It has been well said that "almost universally regarded as either, on the one hand, a sin or a vice, or, on the other hand, as a disease, there can be little doubt that it (alcoholism) is essentially a response to a psychological necessity. In the tragic conflict between what he has been taught to desire and what he is allowed to get, man has found in alcohol, as he has found in certain other drugs, a sinister but effective peacemaker, a means of securing, for however short a time, some way out of the prison-house of reality back to the Golden Age." [2]

Another way in which the resistance offered by consciousness to an offending complex may manifest itself, is by the assumption of some feverish activity, whose object is so to fill the field of consciousness with other ideas and activities that the repressed complex cannot make any appearance. A case in point is provided by the disappointed

[2] W. Trotter, "Herd Instinct," *Sociological Review,* 1909.

man who devotes himself to some strenuous sport or profession in order, as common language aptly expresses it, "to drive his troubles from his mind." A minor example of the same mechanism is often seen in everyday social life, when some subject peculiarly painful to one of the individuals present is inadvertently introduced into a general conversation. The individual may endeavor to conceal his perturbation by a rapid flow of remarks about some other thing, a phenomenon which may be described as a "press of conversation." A precisely similar mode of reaction, though more advanced in degree, accounts for certain symptoms met with in the sphere of insanity. Thus the symptom known as vorbeireden, a term which has been somewhat clumsily rendered into English as "talking past the point," is frequently encountered in cases where the patient possesses some complex which he is endeavoring to repress. The patient does not answer our questions but replies with some totally irrelevant remarks, which are often grotesquely inappropriate, and give to his conversation a characteristic aspect of meaningless incoherence. Thus one patient, in whose life a lady of the name of Green had played a very prominent part, replied to the question "Do you know a Miss Green?" with, "Green, that's green, that's blue, would you say that water is blue?" Occasionally the patient dissects the question into its constituent words or syllables, furnishing a string of irrelevant associations to each, and thereby avoiding any direct answer to the question as a whole. Often it can be shown that a patient converses normally except when a question which stimulates the hidden complex is given; his replies then exhibit the peculiar incoherence just described. The explanation of this mode of reaction is, of course, that the repression is thereby preserved, and the stimulation is not allowed to exert its normal effect, the appearance in consciousness of the ideas belonging to the complex.

The symptom known as "mutism," although apparently directly opposite in character to the rapid flow of talk described above, often serves a precisely similar purpose. The patient preserves a rigid silence, and our questions meet with no response whatever. Occasionally this phe-

nomenon is generalized, as it were, so that for months at a time no word passes the patient's lips.

We must now turn to the other group of phenomena caused by the presence of a repressed complex, those due to the indirect expression of the complex itself. Numerous examples have already been given in the earlier part of the present chapter. We may now pass on, however, to consider instances which exhibit this mechanism in a more pronounced form, and where the manifestations produced are more definitely abnormal.

Certain compulsive actions belonging to the group of obsessions may be mentioned here, of which an excellent example is furnished by the case described [on p. 51 of this volume]. It will be remembered that the patient in question suffered from an irresistible compulsion to examine the number of every bank note which came into her hands. Now the genesis of this compulsion will be apparent so soon as we are acquainted with details of the patient's history which were revealed by a psychological analysis. Some time previously the lady had fallen in love with a certain man whom she had met in a country hotel. One day she asked him to change a coin for her. The man complied with her wish and, putting the coin in his pocket, remarked that he would not part with it. This episode aroused hopes in the lady's mind that her affections were reciprocated, and she longed to know whether he would keep his word. Any money which came into her hands always recalled the scene in the hotel, and the emotions and desires with which it was associated. The man finally departed, however, without making any further advances, and ultimately the lady realized that the hopes she had entertained could have no fruition. The conflict which thus arose was dealt with by a process of repression. The lady strove to banish the painful chapter from her life and to forget that the desires associated with it had ever existed. The repression was successful, and the complex was not permitted to make any appearance in consciousness by way of the normal channels. The intense interest in money which passed through her hands persisted, however, affording a route by which the complex could obtain an in-

direct expression, and this indirect expression crystallized into that exaggerated preoccupation with the bank-note numbers, which formed the dominant symptom of the case.

In all the instances of indirect expression which have hitherto been considered it will be apparent that the essential feature of the process consists in the complex expressing itself along so devious a route that it is enabled to avoid the resistance offered by the censure. The mode of expression must be sufficiently indirect to ensure that the real origin of the ideas appearing in consciousness is efficiently concealed from the individual himself. That is to say, the repressed complex can only exert an influence upon consciousness provided that the influence is distorted to a greater or less degree.

The various methods by which this necessary distortion may be attained are exceedingly numerous, and have but little in common beyond the one fundamental factor that they serve to conceal from consciousness the real origin of the ideas appearing in it. We have already become acquainted with many of these methods, and the detailing of other varieties will form the subject of the remainder of this chapter, and of the whole of the next. The mechanism of indirect expression has, indeed, an importance which cannot be overestimated. There can be little doubt that a vast number of the symptoms of insanity are explicable as instances of its action, and that in it is to be found the solution of the apparently incomprehensible and senseless character which attaches to many of those symptoms. The meaning of this general statement will become clearer at a later stage of our investigation, and it will be profitable to postpone its more detailed consideration until we have accumulated some further material.

One of the most important methods by which the distortion necessary for the expression of a repressed complex is obtained consists in the employment of symbolism. For example, in elderly unmarried women the repressed maternal instincts may find a distorted outlet in an exaggerated affection for dogs and cats. The function of the symbolization is obviously the concealing of the real causal ideas from the consciousness of the individual. In every-

day life feelings of self-importance, whose overt expression is forbidden by the traditions of social conduct, frequently manifest themselves by the employment of symbolisms. We may cite such examples as affectations of gait or dress, a pedantic phraseology, the adoption of a conversation as polysyllabic as possible, and of a handwriting decorated with innumerable flourishes. In insanity symbolism plays a prominent part. The instances we have just considered appear in an exaggerated form as the stilted phraseology replete with neologisms, and other ludicrous affectations and mannerisms so frequently met with in the adolescent insane.

The mechanism of symbolization accounts for many of the curious phenomena known as "stereotyped actions." . . . We may select one borrowed from Dr. Jung. An old female patient, who had been an inmate of the asylum for many years, spent her whole existence in the performance of a single stereotyped action. She had never been heard to speak, and she never exhibited the faintest interest in anything that went on around her. All day long she sat in a huddled position, continuously moving her arms and hands in a manner resembling the action of a shoemaker who is engaged in sewing boots. During her waking hours this movement absorbed her whole attention and it was carried out with unfailing regularity and monotory from one year's end to another. When her history was investigated it was found that as a young girl she had been engaged to be married, and that the engagement had been suddenly broken off. This event occasioned a great emotional shock, and she rapidly passed into the insane state which persisted throughout the remainder of her life. It was further elicited that the faithless lover had been a shoemaker by trade.

Armed with these facts we can easily reconstruct the psychological processes responsible for the symptoms which the patient exhibited. The sudden termination of the engagement caused a distressing conflict, which was finally solved by a process of repression. The affections and desires which had played so important a part in the patient's mind were repressed on account of their incompatibility

with the world of fact, and were only allowed to appear in an indirect and distorted form. This indirect expression was provided by the stereotyped action which symbolized for the patient the whole system of ideas and emotions connected with her lost lover. . . .

A frequent method by which a repressed complex obtains an indirect expression is afforded by the mechanism known as "projection." This method is so important, and appears in such protean forms, that it will be necessary to study it in some detail, and the whole of the next chapter will therefore be devoted to its consideration.

PROJECTION

In the preceding chapter the phenomena produced by the repression of a complex were divided into two groups, those due to the indirect expression of the complex itself, and those due to the presence of a resistance or censure which prevents the complex exercising its normal direct effect. In all the examples hitherto considered the symptoms present could without much difficulty be assigned to one or other of these two groups. It will nevertheless be obvious that this distinction is largely artificial, and that in the formation of each symptom the factors of indirect expression and resistance both take part. The symptom may be regarded, in fact, as a compromise between the two factors in question. The complex struggles to express itself, while the resistance endeavors to prevent it achieving its end. The symptom is finally evolved as a compromise between the two opposing forces. In each of the examples cited in the last chapter, however, one of the two components seemed to play a preponderating part in the compromise produced, so that the symptom could be classified as belonging to the corresponding group.

The group of symptoms to which we must now direct our attention, those due to the mechanism of "projection," exhibit this preponderance of one component to a less marked degree, and the phenomena belonging to it are best regarded as instances of compromise formation in which the parts played by the two opposing forces are approximately equal.

"Projection" may be defined as a peculiar reaction of the mind to the presence of a repressed complex in which the complex or its affect is regarded by the personality as belonging no longer to itself, but as the production of some other real or imaginary individual. The meaning of this definition will be made clear by the consideration of some simple examples. People who possess some fault or deficiency of which they are ashamed are notoriously intolerant of that same fault or deficiency in others. Thus the parvenu who is secretly conscious of his own social deficiencies talks much of the "bounders" and "outsiders" whom he observes around him, while the one thing which the muddle-headed man cannot tolerate is a lack of clear thinking in other people. In general it may be said that whenever one encounters an intense prejudice one may with some probability suspect that the individual himself exhibits the fault in question or some closely similar fault. An excellent illustration of this mechanism is to be found in "Hamlet," in the excessive aversion with which the Player-Queen regards the possibility of a second marriage, although a secret desire for such a marriage is already present in her mind.

> "The instances that second marriage move
> Are base respects of thrift, but none of love . . .
> Nor earth to me give food, nor heaven light,
> Sport and repose lock from me day and night,
> To desperation turn my trust and hope,
> An anchor's cheer in prison be my scope,
> Each opposite that blanks the face of joy,
> Meet what I would have well, and it destroy,
> Both here and hence pursue me lasting strife,
> If, once a widow, ever I be wife."

Shakespeare's acquaintance with the psychological mechanism we are considering is evidenced by the comment of the real Queen:

> "The lady doth protest too much, methinks."

We may express the psychological processes seen in these cases as follows: the fault constitutes a complex

which is repugnant to the personality as a whole, and its presence would therefore naturally lead to that particular form of conflict which is known as self-reproach. The personality avoids this conflict, however, by "projecting" the offending complex on to some other person, where it can be efficiently rebuked without that painful emotion which inevitably accompanies the recognition of deficiencies in ourselves. That is to say, the personality reacts to the repugnant complex by exaggeratedly reproaching the same facts in other people, thereby concealing the skeleton in its own cupboard. The more comfortable expedient of rebuking one's neighbor is substituted for the unpleasant experience of self-reproach. The biological function served by projection is, therefore, the same as in all other varieties of repression, the avoidance of conflict and the attainment of a superficial peace of mind.

In the sphere of insanity the mechanism of projection plays a prominent part, and a great variety of symptoms may be ascribed to its action. Alcoholism, described in the last chapter as one of humanity's refuges from the stress of conflict, provides many excellent examples. The chronic alcoholic develops with great frequency delusions concerning the conduct of his wife or other relatives. Thus one of my patients complained bitterly that his wife was dissolute, a drunkard, and a spendthrift, that she neglected both himself and the children, and that she allowed the home to go to rack and ruin. Investigation showed, however, that all these ideas were purely delusional, and without foundation in fact. The patient himself was the real culprit, and each statement that he made was true of himself but not of his wife. The psychological explanation of his delusions is to be found in the mechanism of projection. By its aid the patient's personality was enabled to treat the objectionable complex as an entire stranger for whom it was in no sense responsible, and thereby to substitute an illusory self-complacency for the pangs of remorse. In such cases as these alcoholism has indeed achieved its aim, and freedom from conflict has been attained, but only at the price of mental integrity and self-honesty, and the asylum has become the inevitable consequence.

Many so-called "delusions of persecution" may be similarly explained by the mechanism of projection. The patient has some secret desire which is repugnant to the personality, perhaps because it is incompatible with the individual's general principles or trends of thought. The mind therefore refuses to treat the desire as part of itself, and projects it into some other real or fictitious person, who then becomes an enemy striving to achieve the patient's downfall. In its minor degrees this mechanism is to be seen in the excuses with which we frequently endeavor to mitigate our moral lapses. We will not acknowledge to ourselves that it was our own ambitions and desires which led to the commission of the fault, but seek to shift the blame to the shoulders of our neighbor. Through all ages "the woman tempted me" has been a stock excuse of erring man. This type of projection attains a much greater development, however, in certain varieties of insanity. In "Old Maids' Insanity," for example, an unmarried lady of considerable age, and of blameless reputation, begins to complain of the undesirable attentions to which she is subjected by some male acquaintance. She explains that the man is obviously anxious to marry her, and persistently follows her about. Finally certain trifling incidents lead her to believe that he is scheming to abduct her by force, and on the strength of this she perhaps writes him an indignant letter, or lodges a complaint with the police. Investigation follows, and it is found that the man is not only entirely innocent of the charges leveled against him, but that he has never expressed the least interest in the lady, and is probably hardly aware of her existence. The lady is certified to be suffering from "delusions of persecution," and is removed to an asylum.

This by no means uncommon sequence of events can be easily explained with the aid of the psychological laws now at our disposal. The patient's sex instincts have been allowed no normal outlet, and have finally become sternly repressed, generally with an exaggerated development in consciousness of the opposite quality. This latter, of course, constitutes the prudery so frequently observed in such cases, whose origin we have studied in a former chapter.

The repressed instincts obtain an indirect expression, however, by the mechanism of projection. The desires originating therefrom are roused to activity by the man in question, and the real state of affairs is that the lady is in love with the man but, owing to the repression, the mind will not acknowledge that these ideas and emotions are part of itself, and finds a solution of the conflict by reversing the significance of the desires and projecting them upon their own object. The bearer of the repugnant complex hence appears to the personality as an unwelcome aggressor, and the genesis of the persecutory delusions is complete.

In many cases of delusions of persecution in which the development is closely similar to that just described, the desires are projected into an individual who has no real existence. The patient's mind, in its struggle to obtain freedom from the internal conflict, invents not only the man's conduct, but the man himself. This more complicated form of projection is of common occurrence, and the female patient who indignantly complains of the violent wooing to which she is subjected by some altogether imaginary man is to be found in every asylum.

In another variety of projection it is not the complex itself which is projected but the reproaches to which it gives rise. The biological purpose which this variety subserves is the same as before, the avoidance of conflict. It is obvious that the painful stress which accompanies self-reproach is obviated so long as the two opposing forces whose conflict produces it are dislocated from each other, and this dislocation may be equally well attained by projecting either of the two antagonists. In the variety we are now about to consider the patient no longer reproaches himself, but he imagines that he is being reproached by other people. The normal analogue of this process is well known—the guilty conscience which sees the accusing finger everywhere around. It is but a small step further to the development of "delusions of reference." The patient is intensely suspicious: if two or three of his fellows converse together he imagines that he forms the subject of their remarks, the casual stranger becomes a designing enemy, until finally every trivial event is welded into one vast conspiracy to de-

stroy him. In patients of this kind the development of hallucinations is extremely common. The reproaches are not merely construed into the actions of those about them, they are handed over to altogether imaginary persecutors. The portion of his mind which the personality has cut off and declined to acknowledge makes its reappearance as an hallucinatory voice. Thus one patient, whose mode of life had wrecked both himself and his family, discussed his former experiences with revolting complacency. He complained bitterly, however, of the system of persecution to which he was subjected; people concealed themselves in the ceiling and under his bed, and poured upon him a flood of abuse and threats, which rendered existence almost insupportable. Hallucinations of this kind may be regarded as literal examples of the "small voice of conscience," distorted by repression. It will be observed that such a patient has successfully avoided the sting of remorse, but he has exchanged Scylla for Charybdis, and has sacrificed his mental integrity to obtain the hardly more desirable alternative of a constant persecution.

It was pointed out that hallucinations, and the systems of ideas which hallucinations express, are to be regarded as dissociated portions of the patient's own consciousness. We are now in a position to understand why this dissociation takes place. The systems of ideas in question are for one reason or another incompatible with the personality as a whole, and their appearance in consciousness would in the ordinary course of events give rise to conflict and painful stress. To avoid this conflict repression has been called into play, and the repressed complexes can only obtain the indirect expressions afforded by projection. The phenomena due to the projection are hence dislocated from the personality, and make their appearance as dissociated systems.

DEMENTIA PRÆCOX (SCHIZOPHRENIC REACTION TYPES) [1]

BY DR. EDWARD A. STRECKER AND DR. FRANKLIN G. EBAUGH

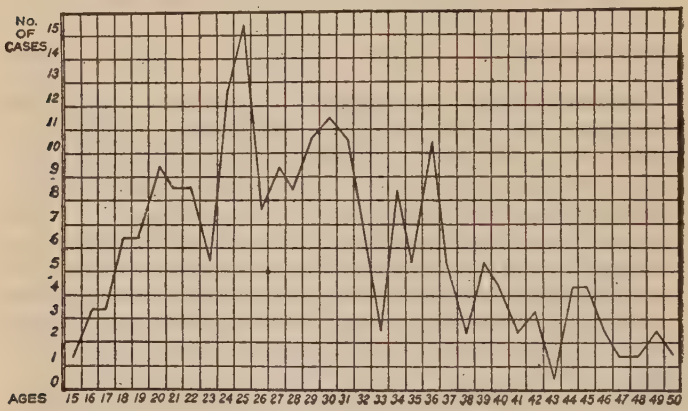
Dementia præcox, the mystery of psychiatry, constitutes a challenge to investigators in every field of medical research. Its etiology is unsettled; its pathology unknown and its clinical limits in dispute and yet it is a more serious problem than either tuberculosis or carcinoma. . . . Each year, not less than 30,000 to 40,000 individuals (including all cases), soon after adolescence or in the first flush of manhood and womanhood, fall victims to this dread disease. Annually, 75,000 new patients are admitted to state hospitals and at least one-fourth are præcox. Unless an adjustment is accomplished during the brief stage of incipiency, they are condemned to a veritable living death, devoid of emotional life and unable to participate in the normal activities and affairs of living. The importance of this group of psychoses from the Public Health (Mental Hygiene) viewpoint needs no further emphasis and preventive measures are of utmost importance.

Dementia præcox, often called schizophrenia, because it reveals a fundamental splitting between the emotional, the thought and motor processes, is a chronic psychosis which has its greatest incidence in the second life decade. It is scarcely a clear-cut disease entity but a reaction type—a maladaptation. In the vast majority of cases, the end state is one of deterioration which particularly involves the mood or affective responses. . . .

There is no definite agreement as to whether or not brain pathology is present. It is best, therefore, to consider ante-

[1] From *Practical Clinical Psychiatry* (2nd ed.). Reprinted by courtesy of the authors and the publishers, P. Blakiston's Son and Co., Philadelphia.

mortem pathology such as is found in the patient's personality make-up. Dementia præcox tends to develop in persons with the shut-in, seclusive type of personality (schizophrenic constitution) often on the basis of mental conflicts, faulty habit formation, and instinctive maladjustments extending back to early childhood and adolescence.



Graph showing range of ages of two hundred dementia præcox patients, successive admissions to the Philadelphia General Hospital.

Dementia præcox frequently manifests itself early in life, the largest percentage of cases developing before the age of twenty-five years, and it tends to progress to deterioration if treatment is not begun early. The prognosis is not always poor, especially not in the early stages. Since the psychosis does not necessarily develop during the præcox age and dementia does not always occur, this group was more accurately termed schizophrenia by Bleuler. Causal factors are always complex and non-specific. Psychogenic, toxic, and organic elements (endocrine) must always be considered in a study of the individual as a whole. The assets of the individual, the situation, and the reaction to situations must, therefore, be evaluated. A dissociation of affect (emotional tone) leading to withdrawal from con-

tact with reality with characteristic behavior abnormalities, delusions, and hallucinations, constitute the essential diagnostic constellation.

In a Massachusetts study of 3,184 cases the clinical classification of various types was as follows:

	PER CENT.
(1) Hebephrenic type	52
(2) Catatonic type	10
(3) Paranoid type	25
(4) Simple type	8

Summary from the Viewpoint of Findings in the Mental and Physical Examination.

MENTAL EXAMINATION.

1. *General Behavior.*
   Oddities of many types, silliness, incongruity, stereotypy, mannerisms, impulsive outbreaks, untidiness, marked mental inertia, rigidity and attitudinizing, refusal of food, etc.
2. *Stream of Activity and Talk.*
   Incoherence, rambling, verbigeration, neologisms, echolalia, echopraxia, etc. Mutism, negativism, catatonia.
3. *Mood and Special Preoccupation.*
   (a) Dissociation of affect, inadequate affect, apathy, indifference.
   (b) *Trend reactions, topical reactions.*
      1. Persecutory ideas, feeling of mistreatment, food tampered with, poisoned, "doped," etc.
      2. Ideas of Reference—feeling of being talked about, people pass remarks that "refer," etc.
      3. Ideas of Influence—feeling of being hypnotized, under mental control, mental telepathy, mental spells, hypodermic injections, radio machines, etc.
      4. Hallucinations in various fields, auditory hallucinations, frequently of a religious pattern on the basis of over-compensation.
      5. Bizarre somatic sensations and delusions, organs have been removed, brain has been re-

moved, vagina has been stopped up, electric sensations over the body, electric wires connecting with the brain, etc.

6. Over-compensation in the form of day-dreaming fantasies, being God, a saint, leader of a new religion, etc.
7. Unintelligible and unexplainable activity. (See table for summary of 200 cases.)

"Analysis of symptoms occurring in 200 cases of dementia præcox leading to prompt hospital admission."

Paranoid Ideas	Present in 118 cases, of these 34 were of religious type, 31 had ideas of being "doped," food poisoned, 20 were actively homicidal, 33 had poorly systematized delusions against various orders, Masons, Ku Klux Klan, etc. Paranoid delusions were marked in those who developed psychoses between the ages of 35 to 40.
Hallucinations	Were prominent in 130 cases, of these approximately 85% were in the auditory field, 12% in the visual field, 3% were hallucinations of smell, taste, and feeling.
Ideas of Influence	Marked in 60 cases—of these two-thirds were in the nature of hypnotic influence, the remainder being of a mechanical nature, X-ray machines, hypodermic injections, radio apparatus, electrical influence.
Ideas of Reference	Prominent in 30 cases—especially marked in cases referred to Out-Patient Clinic and later admitted for hospital care.
Bizarre Disorders	occurred in 43 of these cases. These
Somatic Sensations	consisted in ideas of displacement, transposition of the organs, entrance of outside material, electric wires, snake in the stomach, etc. These de-

lusions were of special prominence in psychoses developed in later life. Over-compensation in the form of day-dreaming fantasies occurred in 23 cases.

Insight Totally lacking in 85% of these cases. A prominent factor in the consideration of modifiability. (Prognosis.)

4. *Sensorium and Intellectual Resources.*
Orientation, memory, retention, grasp of general information, calculation, speech and writing usually are not impaired. Insight is usually absent and constitutes the main finding under this heading. . . .

The Question of Modifiability and Adjustment (Treatment) Procedures.

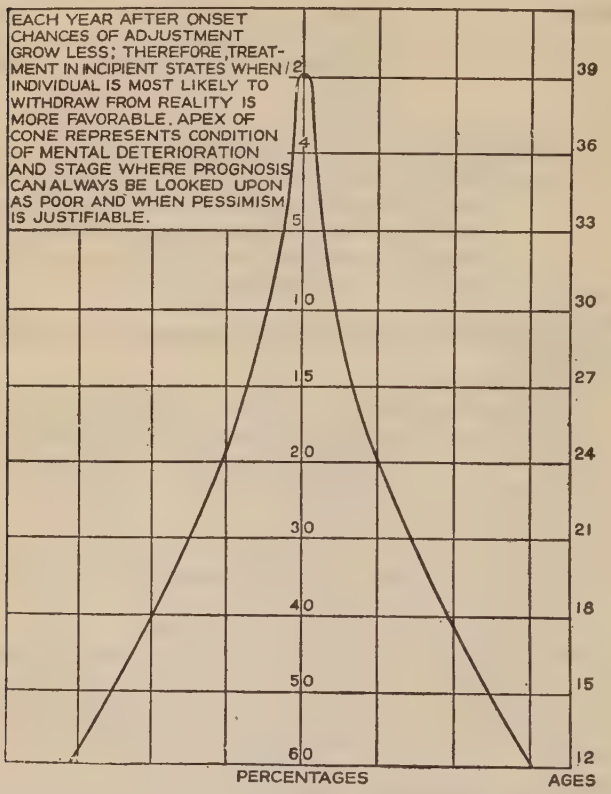
MODIFIABILITY.

1. The following diagram serves to emphasize the need of early treatment and definite preventive measures such as can be instituted through the mental and physical examination in pre-school, adolescent, and Out-Patient clinics.
2. Question of modifiability in general amounts to the following—What are the resources of the patient? (What he has to react with.)
What is the situation he is called on to meet? Can we modify his resources in order to enable him better to meet the situation, or can we modify the situation so he may better meet it with his resources? The study of the individual as a whole and his psychobiological integration is therefore essential.

Prognosis in dementia præcox is at least somewhat more hopeful than is commonly believed. . . .

A close study of the personality is often fruitful and furnishes helpful prognostic guides. It is important to differentiate between a basic and constitutional seclusive make-up and one in which the withdrawal from socialization

constitutes for the individual a somewhat logical defense and protection against definitely inimical surroundings. Catatonic manifestations during the psychosis may be occasioned by the re-appearance of deeply ingrained dispo-



sitional "stubbornness." Abnormality of personality in itself is not sure evidence of chronicity and a psychosis which seems prognostically unfavorable may be given falsely such an appearance by determining pre-psychotic idiosyncrasies of character. If the psychosis is in some sense an evolution

of such peculiarities and no deterioration of personality is implied, then the outlook is not necessarily hopeless. . . .

The transition stage from reality or sanity to unreality or mental disease is an extremely critical period. Inhibition is decidedly lessened and extraneous, accidental happenings may be deeply impressed, and later elaborated into apparently malignant symptoms. Other things being equal, an acute stormy onset is a favorable prognostic sign. . . .

Treatment Procedures.

1. *Preventive Measures.*
   Studies of childhood psychopathology. Mental hygiene in school. Preparation for problems of adolescence, of emancipation from home, sex hygiene, etc. Organized, standardized, state-wide neuropsychiatric examinations of school children beginning at preschool age which could lead to registration of susceptible individuals, prompt treatment, and better adjustment of pre-psychotic individuals as well as of so-called normal individuals.
2. *Safeguarding Therapy.*
   Institutional care of patients during outbreaks to prevent suicide and protect the community. Well equipped observation psychopathic wards are therefore needed in all our large hospitals.
3. *General Internal Medicine.*
   Careful elimination. Careful dietetic and tonic routine, endocrine therapy. Removal of infection and treatment of accompanying disease.
4. *Reconstruction Therapy.*
   Frank discussion of patient's problems and assets (personality resources), and the situation he has to meet.
5. Psychoanalytical procedures may be a help in early cases.
6. Occupational therapy to produce action is very advisable. Colonization of all institutional cases where it is possible for deteriorated cases to become self-supporting. Follow-up of all discharged patients for a

number of years in order to arrive at definite statistical facts regarding adjustment.

7. Careful psychiatric social service follow-up and supervision may reclaim many of these individuals after they are discharged back to the community.

CASE I. *Typical case of Hebephrenic Dementia Præcox with characteristic symptomatology. Rapid deterioration. Mental hygiene hints obtained from study of case. A. K. Female 26 years. Single. Factory Worker. Admitted October 10, 1922. Patient was referred to the hospital on account of her queer behavior and odd delusions.*

ONSET OF PRESENT ILLNESS. Began September 19, 1922, after a visit to a dentist's office. She talked irrelevantly. She felt that the dentist was in love with her and that he had some influence over her. "He made me do things." She became careless of her personal appearance and very untidy, at times exposing herself. Later she began hearing voices which made her confess onanism, which had been a source of worry to her for a long time. She felt that people on the street were talking about her, claiming that she was a bad girl. The girls in the factory disturbed her in various ways. She imagined that she must be making people crazy. She had prolonged periods of laughing and smiling to herself, and at other times was depressed. Relatives said that she threatened suicide. A week previous to admission the patient became very agitated, following a court proceeding against her older brothers for support of their invalid father. At one time she felt that she was facing death but stated that she was willing to die in order to "leave some pleasure in the world" and to "save the world." Voices asked her if she had intercourse with men and referred to other sex topics. She complained of seeing different animals, especially a dragon. She became very religious, insisting on going to church for long periods, attending confession, etc. She felt that she should change her religion. There has been a gradual decline in her physical condition since onset of present illness.

LIFE CHART

A. K. white 26 years. Topper in hosiery mill. Admitted 10-10-1922.
Birthday: 12-12-1896.
Heredity: Father alcoholic. Paralyzed from stroke. Mother died of kidney trouble.

	YEAR	
	1896	Born in Phila. Fourth of family of six.
	1897	Walked and talked at 1½ yrs. "Nervous."
	1898	
	1899	
Whooping cough	1900	Constant friction in family caused by religious differences and father's drunkenness. Father Catholic, mother only Protestant in family.
Measles	1901	Children sent to Baptist Church. Brothers and sisters quarrelsome.
	1902	Began school. Very apprehensive. Afraid teacher would "holler" at her. Never made friends with other children. Refused to jump rope and play games.
	1903	No trouble with lessons. Excellent marks. No interest in classmates. Children took advantage of her. Suffered because of inability to mix.
	1904	
	1905	
	1906	Mother died. Did not cry. "Sat still and worried." Taken out of Public School (4th grade) and sent to private school (Lutheran-German).
	1907	
	1908	Did great deal of housework in addition to school work. Returned to Public School. Adjusted better. (6th grade.)

LIFE CHART (*Continued*)

	1909	More household duties, including family washing. Left school—7th grade.
	1910	Began work as topper in hosiery mill, continuing to onset of illness in same place. Onset of menstruation. Came home from mill crying. Thought she was bleeding to death from TB. Sister teased and said she should be ashamed.
	1911	Sat next to girls at work who practiced mutual masturbation. Several of these girls became illegitimately pregnant. Was told vile stories of sex relations.
Swollen gland in neck	1912	Only man friend patient ever had discouraged by her—"no time to bother." Girls at mill teased her—
Much sore throat continually to 1919.	1913	called her "old maid." Attended lecture at church on "self-abuse causes insanity."
	1914	Disturbed for a long time following this. Felt it was her responsibility to save the men of her family from unknown dangers and was too shy to mention it. Three of family married, three at home including ne'er-do-well brother. Patient and sister
	1915	doing all housework in addition to working from 7:00 A.M. to 5:20 P.M. in mill.
	1916	No time for recreation. No interests outside except Sunday School once a week.
	1917	
Influenza	1918	Father had stroke. Helpless. Patient bathed and dressed him before going to work.
	1919	
	1920	

LIFE CHART (*Continued*)

Depression. Delusions, hallucinations, ideas of influence.	1921	Patient and sister jointly filed complaint at Court to secure financial help from married sisters and brother to support father. Said they were under constant mental strain. Help refused. Case withdrawn. Began to feel "best of life was gone."
Masturbation. Admitted to Psychopathic Hospital 10-22-22; discharged 11-24-22.	1922	
Admitted to Psychopathic Hospital 7-14-23; transferred to Mental Hospital 7-27-23. Ran away 8-12-23.	1923	Worked. Worry over money matters in connection with sale of home. Accused real estate agent of doing her great wrong. Went to police.

Personal History. Normal birth and development. She showed the same oddities in childhood as later in life. She had the usual childhood diseases. She had a severe attack of influenza in 1918. Her school history was one of many changes. From an early age she showed poor adjustment, as illustrated in the accompanying life chart. She has been working in a hosiery factory with practically no advancement. Her work was very tedious and monotonous. She was over-stimulated by her associates who referred to her as an old maid, since she was extremely prudish and the girls enjoyed teasing her and talking continuously about sex topics. This was always a source of great annoyance to her. Her habits were normal regarding eating and sleeping. She practiced self-abuse during the past few years.

Personality Make-up and Situation. Patient has been very seclusive and reserved from childhood. She has always been over-attached to her father and despite her long hours of work in the factory has waited on him day

and night since his stroke. (See life chart.) Her older brothers have never contributed anything to the support of the family and she was imposed upon at an early age by the other members of the family. She has always been very much disturbed over sex-problems, especially since she heard a lecture on self-abuse several years ago. Patient felt inferior to the other girls and reacted very poorly to teasing. She had a constant feeling of "being tortured" in her work. She showed an inability to mix with people from an early age (see life chart) and was inclined to day-dream excessively.

Family History. Father, now 65, had a stroke several years ago. Mother died of cardiac-renal disease, at about forty years of age. Other members of the family, including two brothers and one sister, are normal. No history of alcoholism, drug addiction, malignancy or mental disease of any type in the family.

MENTAL EXAMINATION. *General Behavior.* On admission the patient showed many oddities of behavior. She frequently smiled and laughed to herself. She was impulsive, antagonistic and resistive, at times abusive to those around her whom she accused of torturing her in various ways.

Stream of Activity and Talk. Her talk was extremely irrelevant. At one time she spoke of the Catholics and Jews being "against her" and said that she had to die. Spoke about electricity, self-abuse, various religious events. At these times she assumed an attitude of prayer, moving her lips inaudibly, never, however, showing any waxy flexibility.

Mood and Special Preoccupation. Affect. Inadequate and apathetic. She showed a tendency to laugh and be silly when asked about her father's condition.

Ideas of Reference. "People talk about me and point to me on the street and say that I am a bad girl. This has been going on for two years." At times she had an idea that her food had been tampered with and something put in it in order to make her sexually excited.

Auditory Hallucinations were present. She heard voices that accused her of self-abuse and told her that she must

die. At times she reacted to *visual hallucinations,* stating that she had seen a dragon, which on close questioning she associated with the feeling of death. *Ideas of influence* were present. The patient felt that she was under the control of electricity and also under a mental spell due to telepathy and thought waves.

Sensorium and Intellectual Resources. Sensorium could not be tested adequately. However, the patient was oriented regarding time and place. She recognized the examiner as a physician. Her memory showed no defect. She was able to describe in fair sequence different events of her past life. Retention, grasp of general information, and calculation could not be tested owing to the patient's agitation. No insight into her condition. She thinks that there is "nothing wrong" with her mind and she should be discharged at once.

Physical Examination. Patient was markedly undernourished, being twenty pounds under-weight. There was a diffuse acneform eruption over the face and back. Examination of all the systems was normal. Blood pressure was low, 100/70. Urine examination was negative. Blood chemistry negative. Red blood corpuscles, 4,600,000. Hemoglobin, 75%. White blood corpuscles, 9,240. Normal differential. Spinal fluid examination was negative.

Course in the Hospital. The course in the hospital was one of progressive deterioration. She became increasingly careless of her personal appearance and later refused to go to the toilet. She was sloppy in her habits at the table, frequently eating with her fingers. She became increasingly delusional about the ward doctors, thought that they were tempting her in various ways and felt that she was under their influence through mental suggestion which caused her to masturbate shamelessly during the day as well as at night. She continued to smile and laugh to herself. She occasionally attacked the other patients with no provocation. She did not react well to hydrotherapy. Committed after two months' observation. Physically she improved after course of sodium cacodylate and general tonic measures and relief from constipation. A tonsillectomy was also performed.

DISCUSSION

The discussion of this typical case of dementia præcox may be limited to the following:

1. What indication was there in her early life that the patient might develop a psychosis?

2. What means were there then at our disposal to prevent this psychosis?

The life chart shows the following: At the age of four (formative period) the patient was in a turbulent home environment. At the age of six she was afraid of her teacher, very apprehensive and showed an inability to mix and thereby avoided reality. At the age of ten she showed an inadequate emotional reaction following her mother's death. At the age of fourteen she did not meet the problems of adolescence adequately; with the onset of menstruation she imagined that she was dying from tuberculosis, and later she shunned all sex topics. The next few years of the patient's life were characterized by teasing in the factory, masturbation worries, conflicts and over-stimulation along sex lines, chiefly due to her factory associates and environment. A lecture heard at church, "Self-abuse causes Insanity," resulted in increased conflict. At the age of 22 her father had a stroke and it was necessary for her to wait on him morning and night in addition to her factory work. She also had a severe attack of influenza at this time. At the age of 25 the patient filed a complaint in court against her ne'er-do-well brothers but help was refused. After visiting a dentist she developed various delusions, hallucinations, ideas of influence, and behavior oddities as noted in the history.

Could these pre-psychotic trends have been recognized and relieved through early and prompt treatment?

Examination of this child at a pre-school age could have led to a better habit training and possibly have prevented the formation of a seclusive and shut-in type of personality. Certainly this step is logical and the increasing statistics from Out-Patient Departments and Children's Guidance Clinics prove that this has been done in a growing number of pre-school and adolescent children. A study of our

patient during the period of adolescence certainly could have resulted in instilling better ideas concerning menstruation and sex hygiene. She, thereby, would have reacted better to teasing and would not have been forced to overcompensations, by being prudish and withdrawing from contact on the basis of her mental conflicts and repression. Instead of a lecture stating that self-abuse causes insanity, perhaps a careful talk regarding the physiology of the reproductive organs and the phenomena of masturbation would have prevented any further withdrawal from contact and would have led to sublimation and better adjustment to her environment with real happiness and efficiency. In further consideration of this case, fatigue and a weakened physical condition play important rôles. The improvement of the home situation is an example of one of our very important social needs and it is now being met by Welfare Agencies.

Case II. *A control case to illustrate the benefit of early treatment and to make one more optimistic regarding modifiability of early Dementia Præcox. M. R. Female. Age 14 years. Second year High School student.*

Referred to Out-Patient Clinic with statements from her teacher that she was continually day-dreaming and thinking people talked about her and was unable to get along with her classmates. She had been getting worse the last three months. Examination in the Clinic revealed the following: Patient was very sensitive and talked with difficulty about her preoccupation. She admitted feeling inferior to the other members of the class and thought that they talked about her to annoy her. She also imagined that the teachers had taken a dislike to her; one teacher especially being against her and giving her a "raw deal" concerning her examination marks. This trouble started six months ago and has been gradually getting worse. It was very difficult to get en rapport with the patient in the first examination although later she talked fairly well regarding her difficulties.

Personal History. Normal birth and development. Has had the usual childhood diseases. Patient began school at the age of six and progressed normally up to the onset

of the present trouble. She always passed with a fair average.

HABITS. Normal.

GENERAL MAKE-UP. Patient always was a jolly, carefree school girl, well liked in her community. She, however, preferred to associate with older persons and never indulged in athletics. With members of the opposite sex she was extremely shy. Her main hobby was reading. She has been known to read three to four books a week. The patient took her share of the family burden and helped her parents, who were in poor circumstances. She often carried clothes to her mother's customers as well as helped her mother with a great deal of washing.

Careful study of the situation which was made during the patient's later bi-weekly visits to the clinic, revealed the following:

One year ago the patient was extremely worried at onset of menstruation. She thought that she was bleeding to death, and that she was "different from other people." She received no sex knowledge from her mother and never confided in her parents. She went so far as to hide the napkins at the time of her monthly period. Following this she imagined that she had some displacement of organs. She began to lose weight, developed insomnia, worried continually about her health. She imagined that she had heart trouble or some form of kidney trouble as her aunt had died of uremia. Treatment in this case consisted of a frank discussion of the problem presented by the patient. She was given the facts regarding her preoccupations and made to understand that she was not different from others. The development of new hobbies and interests such as tennis, basket ball, and dancing led to better contact with her schoolmates and overcame day-dreaming tendencies and ideas of reference. Three years later she showed an excellent adjustment. This case in contrast to the first one shows the possibilities resulting from early treatment.

CASE III. *Dementia Præcox, paranoid type, in a man of 39 years. Poorly systematized delusions of persecution with auditory hallucinations and ideas of influence. No insight. Slow deterioration. H. H. Age 39 yrs. White. Married.*

Male. Admitted November 19, 1921. Committed December 15, 1921.

Patient sent to the hospital because he had made a scene at the City Hall where he complained that various people in the Detective Bureau were persecuting him.

Onset of Present Illness. About March, 1921, the patient complained of hearing voices talking to him. Patient said that these voices were "razzing him" in English and a man named F. was "tutoring him" in German. Patient averred that two men, McC. and F., led the Detective Bureau to watch his movements continuously. Patient frequently remarked that he was under the influence of electric machines which kept "boosting" him up and down. He thought that at times his body was full of electricity. For eight months the voices have been changed, they refer to his wife, frequently call him a "poor simp" because he did not "get wise" to his wife sooner and because he did not know "there was an organization working directly against him." This organization operated through the Detective Bureau, according to the patient's statement. In the afternoon of the day of his admission he created a disturbance in City Hall, demanding to see one of the judges in order to get justice. He was very threatening in his attitude towards the two men mentioned above. Stated that if he could not get justice here he would go to the Department of Justice in Washington and see the President.

Personal History. Normal birth and development. Born June 14, 1882. Had the usual childhood diseases with no sequelæ. No serious accidents or operations. Patient began school at the age of five, got along very well, graduating from High School at the age of 17. After graduation from High School he went to work at architecture and civil engineering. He always held very good positions with good salary since he was considered capable and efficient. His habits were normal as far as could be discovered. Patient was married when he was twenty-three years old and has two children who are now twelve and fourteen years of age. He was always jealous and suspicious of his wife, frequently accusing her of receiving attentions from other

men. These difficulties increased until May, 1920, when his wife left him and has since refused to live with him.

General Make-up. The patient was always considered to be a very keen, intelligent but suspicious type of individual. He frequently showed this suspicion in his work by complaining to his fellow associates that his ability was not recognized. He was always distrustful of his superiors and would have been discharged if his work had not been so efficient. His fellow associates considered him a very odd, erratic, peculiar type of individual and by some he was considered a genius.

Family History. Father died at the age of 50 from pneumonia. Mother is living and well. She is considered to be a highly nervous woman but has had no definite breakdowns. Three brothers and sisters are living and well. No history of any mental disease in the family.

Mental Examination. *General Behavior.* Patient was very suspicious, keen, and alert. His demeanor was self-assertive and he was inclined to be antagonistic and surly. He demanded his immediate freedom and was very belligerent towards the physicians who admitted him.

Stream of Talk and Activity. Talk was spontaneous but guarded, irrelevant and incoherent. He showed neologisms, such as, "People are tutoring me. I must follow the lead. People are razzing me." Patient said that this trouble had been going on for many years.

Mood and Special Preoccupation. Patient's mood was inadequate. Despite the seriousness of his persecutory ideas he did not appear to be troubled by them. Paranoid delusions were prominent and were directed against the two men, McC. and F. of the Detective Bureau, who he thought had been following him for six to eight months, hounding him from place to place, and continuously on his trail. They have tried to do away with him; have tried to dope him; have set his wife against him, and now that his money is gone, they want to arrest him and place him behind bars for life. He stated that he had tried in many ways to avoid these men, that he has gone to New York, Boston, and Baltimore and Washington without being able to get rid of them. They spread various reports about him,

particularly about his character and his treatment of his wife, etc. On close questioning the patient stated that this had been going on for the past eight years, but it had become especially troublesome eight months ago. Then he felt that things had "come to a head," so he bought a revolver and made plans to protect himself either by taking the law into his hands or by having legal proceedings instituted against these men and the organization that they were leading against him. He can assign no definite reason for his persecution.

Hallucinations. Patient heard voices talking to him. The voices were chiefly those of McC. and F., who "razz him and tutor him." They refer to intimate affairs with his wife, and make fun of him in various ways, say that they will get him. The patient denied hallucinations in the visual field.

Ideas of Influence. Present and prominent. Felt he was under the influence of electric machines, including X-ray machines, induction coils, etc. "Electricity goes through my body."

Sensorium and Intellectual Resources. Patient was oriented for time, place, and person. He had a fair knowledge of current events and his memory was very good for both remote and recent past events. His grasp of general information was excellent. He gave a very critical review of political events occurring recently, describing the European situation, etc. Retention was extremely good. Retained eight digits. Gave addresses correctly at the end of five minutes, as well as named objects shown. Calculation was unusually good. Could multiply three digits by three digits correctly. The seven from a hundred test was performed quickly and accurately. Speech and writing were normal. Judgment and insight were lacking. Patient felt that he should have justice, that the courts of the city should help him, if not, he would go to Washington or take the law in his own hands and defend himself against his persecutors.

Physical Examination. Patient was in excellent physical condition. Height 5 ft. 6 ins. and weight 150 lbs. All systems normal. Blood pressure 125/80. Laboratory

reports, including urine, blood chemistry, etc., were normal in every detail.

Course in the Hospital. During the patient's stay in the hospital his mental status showed practically no change. He did not appear to have deteriorated further. He adhered to his delusions of persecution but these delusions varied. At times they were directed against his wife and her relatives, later against various physicians, and again against the Detective Bureau. He had absolutely no insight into his mental condition. He talked irrelevantly and incoherently on many occasions. He appeared to be always on his guard in his attitude toward ward patients and visiting relatives with whom he frequently refused to talk. He was committed one month after admission. Since that time he has deteriorated slowly.

DISCUSSION

Case represents one of dementia præcox, paranoid type. The diagnosis being based on unsystematized delusions of persecution and upon further evidence of disassociation of personality as is shown by hallucinations, ideas of influence, general irrelevance and incoherence of stream of talk. This case illustrates the general dictum that paranoid patients are potentially dangerous and ought to be promptly committed.

Case V. *Dementia Præcox with catatonic reaction. Mutism, negativism, waxy flexibility. Periods of excitement. Typical schizophrenic personality make-up. Deterioration. S. T. Female. Age 17 yrs. Single. Factory worker. Admitted January 13, 1920.*

Complaint. Stiffness and nervousness.

Onset of Present Illness. The onset was Nov. 19, 1919, following the arrest of two Bolshevik workers in the button factory in which she was employed. The patient at this time was teased by the other factory workers and was told that her father and sisters would be the next ones arrested. She returned home that evening expressing great anxiety about her father and her sisters, stating that the Bolsheviks had followed her home and were going to kill her family. At 10 o'clock she became actively hallucinated,

stated that she could see the Bolsheviks climbing the telephone pole on the outside; thought that she could see people looking at her from the walls of her room, and that she could see birds and geese. She said that she heard people saying that they "were going to arrest the whole family"; they were "going to take her talents away from her." She thought that electric wires were connected with her brain, and that the Bolsheviks were going to twist her brains out. This period of visual and auditory hallucinations was quite marked during the next three weeks, during which time the patient showed extreme overactivity, shrieked, cried, prayed, and sang alternately. On one occasion while reacting to hallucinations she ran out in the yard at 3 A.M. in her night clothes, singing and praying. She quarreled with the other members of the family, and on several occasions threatened to kill them. During this period of active hallucinations the evidence is that she was not delirious, since her sister stated that the patient knew where she was, and was in contact with her environment as well as with time. The patient had almost complete insomnia and all measures to reassure her were unsuccessful. In the intervals in which she was quiet she was noted to groan, smile, and laugh in a silly manner. Following this period of active excitement and hallucinations the patient, on December 8, 1919, had a fairly normal day. In the morning she followed her mother to church, and nothing unusual was noticed in her demeanor, except a tendency to stare at people. In the afternoon the patient was quiet, played the piano and sang with her sisters. After taking a walk in the early evening, at 9 o'clock she grimaced for a while and after that remained absolutely rigid in her chair. She became entirely uncommunicative and resistive and had to be carried to bed. She had remained rigid ever since; has become completely bed-ridden. The patient refused to eat and it was only with great difficulty that her family and physician were able to force her to take a little liquid.

Personal History. The patient was born in Pennsylvania, April 11, 1900. Normal birth and development. There is a history of nightmares during childhood; also of enuresis. The patient had some difficulty when she first

began to talk, and stammered until she reached the school age. She had occasional outbursts of temper. She was described as being extremely clean and orderly in her habits. She has always been very devoted to her father. There is a history of the usual childhood diseases. During the past year the patient has been subject to headaches of which it is thought eye strain is a most probable cause. She began school at the age of 6 and continued until she was 14, reaching the eighth grade. During the next year she remained at home helping her mother with domestic duties. At the age of 15 she began her present occupation—that of button marker in a factory. There are no special difficulties in this occupation; her work was considered very easy. The patient resented teasing by her associates. There is no history of autoeroticism. The patient received no sex instruction from her parents and gave no evidence of any abnormal curiosity in this sphere. Menstruation which began at the age of 14 was always regular.

General Make-up. The patient was always considered very childish, peculiar, and different from her brothers and sisters. She was extremely seclusive, preferring to keep all her troubles to herself instead of discussing them openly and frankly with her mother as her other sisters did. She had very few friends among her factory associates or in her home circle and never tried in any way to seek the friendship of others. She reacted very poorly to teasing, frequently complained that people were making fun of her, talking about her and mistreating her. Her sister stated that during the past year these traits have all become accentuated. Frequently in the middle of the night the patient has cried out for her sister and showed great apprehension which disappeared only when she was allowed to get into her sister's bed.

In August, 1919, the patient had been sleeping very poorly, frequently going several nights without any sleep at all. She insisted on extreme cleanliness and orderliness in everything she did. During the past year she has frequently washed her hands some twenty to thirty times a day, usually averaging fifteen times a day. While in the bathroom she locked the door and did not allow her sisters

to enter. She refused to dress if her sister was present. Her interests were not diverse, her main one being music (she plays the piano very well). The patient was very religious. She insisted on going to church several times on Sunday, and since August, 1918, she wished to go to church every morning before going to work, but was kept from doing this by her sister.

Family History. Negative for nervous disorders. One brother died of tuberculosis and one brother and sister died of heart trouble, following an attack of rheumatism.

Mental Examination. The patient on admission exhibited gross negativism and mutism, catalepsy and characteristic spring resistance. She was very resistive, uncommunicative and unresponsive. She remained in bed absolutely rigid, taking but casual interest in her surroundings. . . .

Course in the Hospital. During the first two months of her stay in the hospital the patient continued to show complete mutism and negativism with refusal of food. The tendency to spring resistance became more marked, and she showed some tendency to catalepsy. Later she made a few spontaneous utterances, recognized her mother and sisters on visiting day, and sang Bohemian songs for one and one-half hours after they had left. At this time she was but mildly resistive to tube feeding and made frequent attempts to speak, judging by movements of her mouth. On one occasion she stuck out her tongue and allowed the ward physician to prick it. Her stupor was less marked and she gradually became more alert and in better contact with her surroundings. There was a marked improvement in her somatic condition; a clearing up of her stomatitis and a return to normal temperature. She still showed tachycardia of 120. Respiration ranged from 25 to 35. The leukocyte and differential counts were normal.

The patient reacted very favorably to administration of continuous tubs. She continued untidy. Her decubitus ulcers healed slowly. Four months after admission, May, 1920, she was discharged improved. She returned to work and apparently was adjusting herself well, but in October, 1920, again became upset when with her two sisters she

lost her position in the factory owing to a strike. After this she developed hallucinations followed by a prolonged stupor with negativism and catatonia. November 7, 1920, she was committed to a state institution. The progress notes from this hospital are as follows:

November 16, 1920. During patient's residence here she has been inaccessible, catatonic, passively resistive, inactive but sleeping sufficiently. She has to be dressed and undressed, bathed, taken to the toilet at fixed intervals and fed. She sits in a fixed attitude with forearms extended in front of her, facial expression masklike and lower extremities stiff. She exhibits flexibilitas cerea and does not react to questions. This catatonic condition was more marked some days than others, inasmuch as at times she did not answer at all; at other times mumbling with lips tightly closed in scarcely audible tones. About two weeks ago, when her relatives visited her, she talked freely and without much constraint, but since then she has been quite inaccessible. She often calls the resident physician "Heavenly Father," and repeats over and over little phrases such as "I want to be good, Heavenly Father; wait a minute, Heavenly Father, I want to be near my Jesus, Heavenly Father," etc. There was no emotional variation.

December 7, 1920. Catatonic, stiff and awkward in her movements, mute for the most part, not eating sufficiently, sleeping well, untidy in habits, tube fed morning and evenings. Weight is 105 pounds.

January 5, 1921. Since the preceding note was made patient has not materially changed except that a week ago she began eating voluntarily and has not been tubed since.

January 13, 1921. Eating and sleeping well, tidy under supervision, has to be assisted in dressing and undressing owing to her catatonic state; talks very little.

February 1, 1921. The patient is eating voluntarily but has to be assisted in dressing and undressing. She will sit in one position for long periods of time unless moved by the nurse. She is mute and quite resistive.

October 9, 1921. The patient was paroled to-day.

November 9, 1921. The patient was discharged to-day.

January 25, 1922. Visited by After-care Worker. Mother

states that they took her to a private hospital two days after she came home. Physicians there state dementia has advanced. . . .

Case VI. *Dementia Præcox. Onset with depression and later three suicidal attempts. Panic over instinctive problems with hallucinatory episodes. K. E. Male. Age 27. Single. Admitted September 25, 1922. Committed November 20, 1922.*

Immediate reason for being brought to the hospital was because patient had made an attempt to cut his throat.

Onset of Present Illness. A change was first noticed in the patient about six months ago when he became very depressed, felt that he had committed some great sin, frequently talked irrelevantly and incoherently and complained that people stared at him in a peculiar way. He frequently heard voices call him "masturbator." He locked himself in his room for long intervals, often refusing food for several days. He complained of insomnia and was heard to pace back and forth in his room in the middle of the night. He frequently told his mother that everything had changed, things seemed unreal to him, that life was not worth while. A week previous to admission he became actively hallucinated and heard voices telling him that he must kill himself since he was not fit to live with or associate with normal people. He felt that his eyes had changed. Complained that all of his semen was gone, that he was drying up. His condition gradually became worse. He became panicky, locked himself up in his room, attempted to cut his throat with a razor and succeeded in severing the superficial vessels. He was sent to a dispensary and later taken to a clinic for neuropsychiatric examination and treatment.

Personal History. Normal birth and development. Born in Boston, April 10, 1895. Had the usual childhood diseases, including mumps, whooping cough, and at the age of ten scarlet fever with bronchial pneumonia as a sequel. He was very sick at this time. He had always suffered from frequent attacks of tonsillitis and had a mild case of influenza in 1918. A tonsillectomy was performed on the advice of the family physician in 1919. Patient be-

gan school at the age of six. He never repeated a grade, graduating from high school at the age of eighteen. On leaving high school he began work as a stenographer. He was considered efficient and at the time of admission was earning $25.00 per week in this capacity. His habits were normal regarding eating and sleeping. Denied use of alcohol. Worried over autoerotic practices since the age of puberty.

General Make-up. Patient was always well liked and mixed well with the crowd, though he was considered by his associates to be very serious minded. He had few interests outside of his work. He attended church several times each Sunday up to the year preceding the onset of the present trouble when these activities ceased. He was inclined to day-dream and frequently imagined that he was in charge of the business, that he had replaced the president, etc. There was no history of love affairs, except for a period of a year when he spoke to his associates about receiving letters and advances from a very popular movie actress. These letters were later found to be entirely imaginary and were the source of considerable joking among his office companions.

Family History. Father, age 49, living and well. Mother, age 45, living and well. There was a history of a breakdown in an older sister who is now in the State Hospital with a diagnosis of manic depressive, depressed type. A younger brother, age 17, was considered to be very precocious. He always led his class in school and plans to go to a divinity school in the near future. Otherwise, family history is of no significance.

Mental Examination. *General Behavior.* Patient was very agitated and depressed. During the examination he kept moaning, "Why did I do it?"

Stream of Talk and Activity. Talk was never spontaneous, only in answer to questions. He showed marked retardation.

Mood and Special Preoccupation. Affect was that of depression. Patient said that he had ruined himself and that "life was not worth while." On close questioning he admitted the following: that masturbation caused nervous-

ness, made him lose his mind, changed the expression of his face to one of blankness, and made his eyes lose all their luster. He imagined that people on the street referred to this practice and that his office associates talked about it. "Both sexes know what type of individual I am." He stayed away from crowds on the street to avoid being talked about. Ideas of reference of this type were present during the past year. Hallucinations were indefinite and vague. He stated that he heard voices call him "masturbator" and the night before he made an attempt to cut his throat he heard a voice tell him to kill himself and felt that he had to obey this command. No ideas of influences or other abnormal mental trends were elicited.

Sensorium and Intellectual Resources. Patient is oriented for time, place, and person. Memory showed no defects. Grasp of general information and calculation were fair. Judgment and insight—he realized that he had a mental disease which he considered hopeless and so he showed some insight.

Course in the Hospital. During the patient's stay in the hospital there were many changes. His active depression was gradually replaced by apathy and indifference to his surroundings. Auditory hallucinations played a very prominent rôle for the first time. He heard voices referring to his physical condition, saying that his semen was all dried up, his organs had been turned around, his brain had been removed, etc. These voices were those of both men and women, the latter he associated with a prominent movie actress who he maintains was formerly in love with him and whom he had planned to marry. He became silly, untidy, talked very incoherently, showing evidence of progressive deterioration leading to commitment.

DISCUSSION

Case is one of interest in that suicide is more common in dementia præcox than has previously been supposed. The rôle of masturbation and mental conflict leading to withdrawal from contact is shown in the patient's delusions and hallucinations. His autistic love affair with a prominent movie actress was revealed as he deteriorated. Over-com-

pensation in the form of religious activity is illustrated in his history. The difficulty in differentiating dementia præcox from other psychoses especially those of the manic-depressive group is evident. The latter course in the hospital, however, decided the diagnosis.

In order to avoid pessimism as well as to illustrate the dictum that early treatment in these cases is certainly productive of good results, and possibly a permanent recovery, it will be wise for us to review briefly the following case.

Case VII. *Control to case six. A third year High School student examined at beginning of difficulties similar to case six. Excellent adjustment. J. L. Male. Third year High School student. Age 15 years.*

Sent into the Out-Patient Clinic by his teacher with the following statement: "This boy seems entirely absorbed in his own problems. He is now a total failure in school, whereas previously he used to lead the class. He is silly, peculiar, and is rapidly giving up all of his former interests in school work as well as in athletics." His mental examination in the Clinic revealed the following:

His general demeanor, talk and activity showed no striking abnormalities. One year ago he visited a quack in order to obtain a cure for masturbation. This man charged him $10.00, giving him some pills which the patient later produced in the Clinic. He was very much concerned about his masturbation since he had read that this "caused nervousness and insanity." Questioning revealed that he felt this practice caused a decline in his physical condition and was responsible for his loss of weight, his lack of power to concentrate in school and the change in his eyes. Recently the patient thought that other people knew that he had this habit and that his school associates talked about it. He described his condition fully and was very anxious to receive advice regarding the consequence of masturbation. Treatment consisted of giving him the simple facts to desensitize him regarding the sexual situation by describing the physiology of the reproductive apparatus and the phenomena of masturbation. He was given to understand that masturbation of itself had caused no harm, but

brooding over it continually led to trouble. He grasped these facts very readily and reported to the Clinic regularly. Later reports from the school show that he made an excellent adjustment and a sublimation of his sex difficulties through vigorous high school athletics. The creation of these interests and hobbies has produced a normal adjustment. This normal adjustment has continued for several years and the evidence at present is that this individual will make a complete adjustment. The mental trends in this case, of course, are those of a definite schizophrenia leading to a withdrawal from contact with reality. If this boy had not received early treatment it is highly probable that he would have developed into a definite case of dementia præcox. This again shows the value of early examination and the hopeful side of the dementia præcox problem.

CASE VIII. *Dementia præcox reaction developing on a toxic basis. Symptoms followed a severe quinsy. Critical condition in hospital with gradual improvement after tonic measures, removal of infection, occupational therapy and reëducation. Later excellent adjustment. H. V. Age 25 years. Female. Single. Admitted April 2, 1921. Discharged July 15, 1923.*

ONSET OF PRESENT ILLNESS. Following an attack of quinsy in March, 1921, the patient became so apathetic and listless that she gave up her position three days after returning to work. She lost interest in her personal appearance, and would sit in one place for hours, rocking her body back and forth and making motions with her arms. She would not eat and became very weak. She talked in a vague and disconnected fashion about "seeing taxicabs," "trusting the children," etc. She had one "weak spell" in which she nearly fainted, complained of everything getting black and sat with her eyes shut. She frequently smiled and laughed to herself in a silly way, and had periods of sudden antagonism when she was violent and destructive. She showed no interest in anything about her home and all measures to help her were unavailing.

PERSONAL HISTORY. Normal development. She is the second of three children. No children's diseases. Began

school at the age of seven. She was very bright; was graduated from a two-year course in stenography at high school when fifteen years of age. She was very ambitious to be a teacher, but owing to family finances it was necessary for her to begin work. Her first position was in a real estate office where she worked for one year as stenographer. Reason for leaving—better position offered with a refining company. Here she remained several years until March, 1921, when she had a severe attack of quinsy. Later had a position as clerk, working satisfactorily until the onset of the present trouble.

General Make-up. Patient was always very quiet. She was a hard worker, very serious minded, and ambitious. She mixed well with girls, but rarely had anything to do with the opposite sex. At school she was athletic, playing tennis, basket-ball, swimming. Patient was greatly interested in her personal appearance. She was very fond of children and was strongly attached to her younger sister. Never had much responsibility at home. She reacted normally to situations she was called on to meet, having few ups-and-downs, very little excitement, and no serious upsets.

Family History. Completely negative.

Mental Examination. On admission the patient was very antagonistic. She mumbled words incoherently. She remained in one place in the ward for long periods of time and was very listless and apathetic, indifferent to her surroundings, disinterested during the interviews. Frequently responded to imaginary voices, but in routine questions denied auditory hallucinations. She would not coöperate for usual sensorium examinations.

Physical Findings. Patient showed marked undernutrition. Tongue was coated, tonsils enlarged and infected. Soft systolic murmur over the mitral area—no enlargement of the heart. Urine showed a trace of albumen and indican.

Course in the Hospital. Patient continued to smile and laugh to herself and was very untidy, frequently exposing herself. All efforts to have her join the occupational class were fruitless. She gradually responded to

tonic measures, and on April 12th, a tonsillectomy was performed. Following this operation the patient was much worse and lost weight rapidly. She became more apathetic, disinterested, untidy, with intervals of catatonia. She allowed her tongue to be pricked with a sharp instrument. Occasionally she has impulsive outbreaks, attacking one of the other patients apparently without motive. In the latter part of May she was transferred to the convalescent ward where she gradually took part in the ward activities and began occupational therapy. She worked in a disinterested fashion at irregular intervals, gradually showing increasing interest in her surroundings. She continued untidy. Arrangements were made the first of June to take her out on automobile rides. These proved very interesting to the patient. She began to talk spontaneously and developed insight into her mental condition. At this time she described periods when she had overworked at the office. She referred to sex worries, admitted that she had thought people were talking about her and accusing her of "a bad practice." When these worries were at their height she developed quinsy, had severe headaches, occasional chills, and lost weight rapidly just previous to admission to the hospital. She admitted auditory and visual hallucinations. In her visual hallucinations she had seen children. She always had a deep interest in children and has considered taking charge of playground activities. She showed a marked physical improvement at the time of her discharge, evidenced by gain in weight and normal appetite. She had insight into previous mental condition. Relatives were advised to continue convalescence for some months before having her return to work.

DISCUSSION

This case was classified as one of early dementia præcox. The severe attack of quinsy is of importance in that it illustrates how a systemic disorder may precipitate a psychosis. Her withdrawal from contact was on the basis of her physical impairment and projections in the forms of ideas of reference, vague paranoid trends, and occasional auditory hallucinations. The main features of treat-

ment were removal of the source of infection and frank discussion of many of her preoccupations and vague sex worries. With the establishment of adequate insight she was discharged to her relatives for a more prolonged period of convalescence. Later progress notes show that this patient is adjusting herself normally outside. She has been followed in the Out-Patient Clinic and was finally discharged June 1923.

PARANOIA AND PARANOID CONDITIONS[1]

BY DR. EDWARD A. STRECKER AND DR. FRANKLIN G. EBAUGH

Paranoia is a very interesting and rare mental disease. It is, however, probably better known to the public through the attention it has received from the courts and newspaper reports than any other psychosis.

In considering paranoia or paranoid conditions, it is extremely important to exclude entirely the paranoid states symptomatic of other psychoses, especially common in the alcoholic group and in the organic reactions as well as in schizophrenia.

It is important for the student to realize that there are basic and essential differences between paranoia and "paranoid." The former is an extremely rare psychosis; the latter is a common syndrome of mental symptoms which may occur in almost any psychosis. The following table from Claudé may be helpful in making this important distinction:

PARANOIC PSYCHOSES	PARANOID PSYCHOSES
Exaggeration of constitutional tendencies.	Distortion of tendencies.
Amplification of personality without signs of conflict.	Fragmentation of personality.
Contact with reality preserved.	Signs of conflict.
Exaggeration of affectivity. (Egocentricity.)	Loss of contact with reality.
Logical development (of delusions) upon false premises.	Alteration of affectivity.
	Dissimulation of egocentricity.
	Illogical and imperfect development (of delusions).
	Looseness of systematization.

[1] From *Practical Clinical Psychiatry* (2nd ed.). Reprinted by courtesy of the authors and the publishers, P. Blakiston's Son and Co., Philadelphia.

PARANOIC PSYCHOSES
Continued

Sound systematization in line with tendencies.
Frequent ideas of grandeur.
Exaggerated feelings of prejudice.
Self-control better preserved.
Slow development of defense measures.
Recourse to legal measures.
Submission to authority.
Delusional activity may not manifest itself for many years, permitting social adaptation to continue.
Delusional formation is coherent, only slowly expanding. Memory good. Intellectual activity intense. Ingenious methods of defense. Reticence.
Delusional system is fixed and well constructed.
Emotional reactions are lively.
Possibility of intellectual growth exists.
Neuro-vegetative reflexes are active.

PARANOID PSYCHOSES
Continued

Ideas of grandeur without strong conviction. Frequent indifference with regard to persecutions.
Early manifestations of delusion.
Absurd reactions.
Hospitalization occurs early on account of odd behavior.
Delusions are coherent and expansive. Memory falsification.
Stories are incoherent, changeable and absurd. Reasoning poor.
Delusions change; are polymorphic.
Apathy, autistic life of fancy.
Loss of intellectual activity.
Old acquisitions preserved.
Nothing new is acquired.
Neuro-vegetative reflexes often diminished or lost.

The clinical picture of paranoia as described by Kraepelin is characterized by the "furtive development resulting from inner causes of a lasting unmovable delusional system that is accompanied by the complete retention of clearness and order in thinking, willing, and acting." This delusional system may develop in connection with litigation, religion, politics, or eroticism leading to a definite classification such as litigious paranoia, religious paranoia, etc.

For the student and psychiatrist the following facts warrant a diagnosis of paranoia: (1) Systematized delusions of persecution; (2) expansive delusions; (3) complete preservation of the personality with no affect or conduct disorder except those in keeping with the delusional state.

Systematized delusions of persecution constitute the

main findings in the mental examination. These delusions are usually clear-cut and have a logical connection, and are frequently based on misinterpretation of an actual situation.

Bleuler states that the false premises in paranoia are morbid references to self and to memory deceptions. For instance, many cases of so-called litigious paranoia have developed after unsuccessful law-suits, or some legal entanglement. The delusions of persecution often result in dangerous assaults and homicidal attacks which clearly indicate the necessity for prompt commitment of these cases. Numerous letters to men in authority are written by these patients to terminate the persecution. The first patient has written to the President, Attorney-General and others "to no avail." Threatening and insulting letters also are frequent.

Expansive ideas play a prominent rôle in paranoia. One patient devised a scheme to settle the Allied war debt and frequently communicated his ideas to the President. Another patient was the founder of a new religion and planned to save the world through his influence. Several patients claimed to be inventors whose ideas were worth millions. The first case presented frankly admitted that her skill in medicine would enable her to cure cancer and tuberculosis.

There is complete preservation of the personality in this disease and, with the exception of the persecutory ideas, the behavior, talk, activity, affect, and intellectual resources are all intrinsically normal. Frequently before making a diagnosis of paranoia, it may be necessary to keep the patient under observation for many weeks or even months. We do not believe that hallucinations occur in cases of true paranoia. After many years have elapsed, one finds little if any evidence of deterioration. In fact, Bleuler states that cases tend to improve with the beginning of the senile period, in that they are less active and are more inclined to give up some of their delusional ideas.

Paranoia is a rare disease. State hospital statistics in the United States covering a period of years show paranoia and paranoid conditions have been diagnosed in 1.9% of

the cases admitted. Many physicians have never seen a true case of paranoia. In the Philadelphia General Hospital one of us has been willing to make this diagnosis in but three of over five thousand successive admissions. It occurs more frequently among men than women. Kraepelin states that 70% of the cases observed by him have been men.

In two-thirds of the cases the onset of the disease occurs in the thirties. It is, therefore, mainly a disease of middle life. Cases do occur, however, in the twenties. The course of the disease is always chronic and all psychiatrists agree that it is incurable. Anatomical findings are wanting. All cases of paranoia should be committed since they are always potentially dangerous; however, cases do get along outside for many years and it is extremely probable that many never come to the attention of a psychiatrist.

Case I. *Paranoia. Systematized delusions of persecution with expansive ideas extending over a peroid of five years. Complete preservation of the personality. Traveled from city to city to escape persecution. Planned one assault. Periods of observation in many hospitals. Edna E. Female. Age, 38 years. Single. Admitted April 13. Committed to P. G. H. May 21, same year.*

Onset of Present Illness. In the early part of 1918 the patient complained that a certain minister was trying to poison her and to defame her character. Since that time the patient has wandered from city to city to escape the minister. She has had numerous positions, but said that she always lost them because Rev. Y. spread stories about her and tried to make her immoral. Rev. Y. is associated with B, who has a great deal of influence in Missouri and the Southwest. B is in turn Wall Street's agent—and Wall Street is under the control of John D. Rockefeller. Because she will not surrender to their wishes, they are now causing her to have many bitter enemies. They have turned her sister and her two half-brothers against her and have made the physicians of the Bellevue Hospital give her codeine in her food and put poisoned needles in her back. The Masonic Order and various newspapers are also against her.

The patient's sister states that the patient had written numerous letters to complain about this scheme of persecution. On several occasions she has written to President Wilson and President Harding and also to the Attorney General of the United States as well as many prominent municipal authorities.

About one year before committal, while the patient was in St. Louis she bought a revolver and planned to kill the Rev. Y. She had a period of excitement and was admitted to a state hospital at this time. After three months in that hospital she was discharged. After going to New York, as a result of threatening letters and frequent calling up of newspapers for protection, she was again admitted to a psychiatric institute and discharged against advice after a period of several months.

Personal History. E. E. was born January 18, 1884. Normal birth and development. At the age of 14 years, the patient began to have a series of childhood diseases, including diphtheria, scarlet fever and measles. No sequelæ of these diseases.

School. Edna attended school from the age of six, completing the seventh grade at the age of 14 years. She was very ambitious in school, but made only moderate progress. Her sister feels that Edna was of average intelligence. After leaving school the patient helped her mother with the housework. She was always fond of children and in 1907 she had charge of a playground in New York City. Since this time the patient has had innumerable positions, mostly in hospitals or institutions; never, however, staying longer than two months in a position. She was always dissatisfied and complained that her abilities were not recognized. In later years, the patient left several positions to escape the persecutions of the Rev. Y. and his colleagues.

Habits and Sex. Habits were normal. History of early autoeroticism, possibly homosexual experiences, but no history of heterosexual tendencies.

General Make-up. The patient's sister summarized the general make-up of the patient by stating that she was always extremely egotistical, ambitious, suspicious, and frequently misinterpreted a remark as applying to herself.

The situation is interesting, as there has always been marked antagonism between her and her step-brothers and step-sisters. Her father had previously had six children, all of whom were well educated and have excellent positions. Edna feels that she was neglected from an early age; was not given the means to complete her education, and that she did not get her share of her father's estate. There is no evidence that this is true.

Family History. Father died in 1912 at the age of 62 years. Mother died at the age of 45 years, of cancer. One full sister, age 43 years, single, living and well. Of the six children of the first marriage, only four are now living. The cause of death in the other children is unknown. No history of any mental disease, alcoholism, drug addiction, epilepsy or insanity.

Summary of Mental Examination. *General Demeanor.* The patient was alert and suspicious until her confidence was obtained; then, she become coöperative, quite circumstantial, and willing to relate her story.

Talk. Spontaneous, relevant and intelligent.

Activity. Normal. Frequently helped out about the ward. Patient became mildly excited and over-active when she described her delusions.

Mood and Special Preoccupations. The affect was normal and in keeping with the situation. Patient admitted having periods of depression when it looked like she was "fighting a losing battle" against her persecutors. She felt worried and concerned about being in the hospital, as she realized that the question of her sanity was involved.

The patient displayed great interest in medical matters and claimed that she could cure tuberculosis and cancer by the use of herbs whose secret properties she alone knows. "I could put it all over on you doctors here if I wanted to," she says. She states that she obtained this information from an old medical book which the doctors have long ago forgotten. Edna refused to give out the secret of her cures because every one is jealous of her powers. Despite all arguments, the patient was sure of her medical prowess.

Delusions. Fixed and systematized delusions of per-

secution were present, involving mainly three persons—Rev. W., a Baptist preacher now dead; L. M., a business man, and Rev. Y., who since Rev. W.'s death is now the leader. A summary of her delusions is as follows:

"I have always desired to study for some profession such as medicine or law. I could not afford to begin these studies when I wished to; therefore, I wanted to study shorthand until I could go into my chosen profession. At the time I did not have the money to take a stenographic course, so I went to my pastor, Rev. W., to ask church aid in securing my education. After much persuasion on my part, the financial help was promised by Rev. W. After attending school a little while Rev. W. refused to pay my tuition bills and at this time he began to slander my character, and spread broadcast accusations of immorality against me. I could not go to church without hearing uncomplimentary remarks from members of the congregation. Rev. W. all but denounced me from the pulpit.

"As I look back on this time (1910) I can see that all the misfortunes I had came from this source. All this was done by Rev. W. to hide his own sin of drunkenness and immorality. Rev. W. has always disliked me ever since I went to live in New York City and came back home with metropolitan customs and tastes. He had also been very intimate with my half-brother who had succeeded in getting my share of the family money and had increased the minister's dislike for me. Rev. W., furthermore, was doing all he could to keep me out of fame, as he was jealous of my mental powers.

"Rev. W. was kept in his pulpit, it was stated, through the influence of L. M., President of —— —— Co., who owns the whole city of St. Louis, body and soul. Rev. W. subsequently died and L. M. procured another minister, Rev. Y. (whose church I had attended six or eight times and had joined to escape persecution by Rev. W.), as an agent in persecuting me.

"The persecution is carried on now so insistently and in such well arranged detail by Rev. Y., that now L. M. could play a relatively impassive part in the procedures against me (yet the patient states that it is L. M. who is really

behind it all as director of the assault against her, and that two years ago she planned to kill him and procured a revolver for this purpose).

"Rev. Y. and L. M. are trying to make me surrender to leading an immoral life. Rev. Y. is L. M.'s agent and is kept in his church to add to L. M.'s political influence in Missouri and the Southwest. G. B. is in turn Wall Street's agent and Wall Street is under the control of Rockefeller. The strength of the persecution has been tremendously increased by the banding of the Masonic Order, the Order of the Eastern Star, and newspaper reporters against me. Because I will not surrender to the wishes of G. B. and Rev. Y., the league is now causing me to have many bitter enemies who force me out of employment by their false accusations."

Finally, in August, 1918, because of this persecution, Edna left St. Louis and sought employment elsewhere. She has since that time been forced to travel here, there and yonder, and has not stayed in any one place much longer than three months. She lived in St. Louis, Ozark Mountains, Chicago, Indianapolis, Cincinnati, New York, Philadelphia, Cleveland and Pittsburgh. The patient claimed that lately, because she would not yield, efforts were made to poison her while in a New York Hospital by the doctors putting "poison needles" in her back and they next planned to use morphia. She said that the physicians were influenced to do this by the league against her.

Edna would not admit that any of her delusions are open to argument. She has spoken of many letters written about her to annoy her and persecute her, but when asked to present one of these letters as proof, she readily dismissed the subject by saying "these things are true—I know they are true." The patient has written many letters in her effort to refute the slanderous remarks that have been spread about her. She has written to prominent people, including ex-President Wilson, President Harding, Mr. Wanamaker, the Goulds, and several state governors and mayors of three cities. Edna said she had written over three hundred letters in the past two years. During her hospital residence

she has written several letters in which she has set forth her personal history in great detail.

Hallucinations. Have not been present. The patient's reaction when asked if she heard voices was a perfectly normal one.

Sensorium and Intellectual Resources. Normal. She was clearly oriented for time, place and person. No defects of memory for either remote or recent events. Retention was unusually good, showing ability to repeat seven digits backward. Retained eight digits. Calculation and general information were excellent. No speech or writing defects. Faulty judgment as pertains to her delusions as well as complete lack of insight.

Course in Hospital. Her delusions of persecution have remained firmly fixed and systematized as noted in the above mental examination. Subsequently she has given the same account in detail to every doctor who has examined her. At times, she was very suspicious of all present and explained this by stating that L. M. and Rev. Y. have banded many physicians against her. She was afraid that drugs might be used on her.

The patient was coöperative on the ward and never troublesome. She spent a great deal of her time in writing accounts of her persecutions. At other times she was very reticent and refused to admit any delusions. She had no physical complaint of any sort. She accepted notification of transfer to another department as an inevitable result of her persecutions.

Physical Examination. Normal in every detail. Fair nutrition and general make-up. No endocrine disorder. Neurological examination was negative. Blood pressure 125/85. Detailed laboratory examinations were all negative.

DISCUSSION

This patient illustrates the general findings of paranoia as well as the tendency of these patients retro-actively to develop falsification of memory. For instance, the patient tends to blame misfortune of many years ago on the fact that she was being persecuted at that time without being

aware of it. Systematized delusions of persecution extending over years of wandering from city to city, the writing of numerous letters to prominent people to complain of these persecutions, as well as the writing of threatening letters, are especially characteristic of this disease. The personality make-up of the patient is also in keeping with the later development into the psychotic state. Her ambition and desire to learn a profession, probably without any real ability, possibly many mental conflicts about sexual problems, led to projections in the form of systematized delusions of persecution. The prominent features in the mental examination were the delusional trends mentioned. No affect disorder of any degree was discovered. The fact that she had planned on one occasion to kill her persecutor illustrates a fairly common aspect of these cases and suggests the general dictum that all cases of paranoia should be institutionalized. Whether one is justified in saying that this is a case of paranoia developing on an erotic (homosexual) basis does not need to be discussed here.

The period in the ward when she denied any delusions illustrates how difficult it often is to commit these cases. The alertness of the paranoiac and the excellent intellectual resources serve to explain the fact that courts frequently are willing to set the patient free after habeas corpus proceedings despite the testimony of a psychiatrist. . . .

MANIC-DEPRESSIVE PSYCHOSES[1]

BY DR. SMITH ELY JELLIFFE AND DR. WILLIAM A. WHITE

In harmony with the hereditary tendencies which appear to be present in this group of cases it is found that the group may be widely differentiated into two extremes, the one in which the constitutional factors appear to be predominantly in evidence and in which the various attacks appear to originate either without any cause at all or at least without a determinable or apparent cause that is sufficient, the endogenous type; and the other which appears to be more or less largely determined by causes which are apparent, such as the inability of the individual to adjust to certain conditions of life and repeated breakdowns with the return of these conditions, the reactive type. It is important to recognize these two groups of cases, between which of course every intermediate variety may be found, because of the significant bearing which the type of etiological factor has upon the probable outcome of the therapeutic attack.

MANIC PHASE. The cardinal symptoms of the manic phase of a manic-depressive psychosis are three in number, namely (1) flight of ideas, (2) psychomotor hyperactivity, (3) emotional exaltation. These three symptoms may manifest themselves with any degree of severity, and the severity of the symptoms may vary within wide limits at different times throughout the course of the attack. . . .

Taking the attack as a whole the ordinary acute varieties are generally designated as acute mania or acute maniacal excitement. Still milder grades are spoken of as hypomania

[1] From Jelliffe and White's *Diseases of the Nervous System* (4th ed.), by courtesy of the authors and the publishers, Lee and Febiger.

and the more severe grades are generally termed acute delirious mania.

Flight of Ideas. "Do you know I was kidnaped to be sent here twice. I saw a mock funeral of me before I left home. This was done because I am a great inventor. The Pope of Rome is the greatest human being in the universe. He is the head of the Catholic Church. My head (association of the word head in two different meanings) is good and sound, and I am certainly not insane. Do you hear the ticking of the clock? (External association.) It says, 'Call the little heifer, the heifer is sick.' Did you ever see the gloves veterinary surgeons use when they doctor sick cows? (Internal association.) Say! what are you keeping me here for anyhow? I want to go home. (Here he was asked how he slept at night.) I have slept excellently; that is because I am of such a strong constitution. The Constitution of the United States (association as above with the word head—probably the association is in large part at least a sound or, as it is called, a clang association) was signed by Thomas Jefferson. He was just a man, but he was not the inventor I am."

In this phenomenon of flight of ideas the patient either has no guiding idea or else at once loses it so that there is no consistent and sustained effort directed toward attaining a goal idea, and the thought therefore wanders here and there under the influence of chance associations.

In this condition, therefore, the patient is constantly active, busying himself about one thing and another, talking continuously meanwhile, often in a loud and rather boisterous manner, while emotionally, exaltation is manifested by good humor, a smiling countenance and increased self-esteem, punctuated mayhap by attacks of irritability or impulsive anger from little or no cause.

Acute Mania. The next grade of maniacal excitement presents perhaps the most characteristic picture of this phase of the disease, exhibiting the symptoms to best advantage, though it must be understood that the symptoms of the different grades differ only in degree, intermingle and are found alike in all the conditions.

In this degree of excitement the flight of ideas is well

marked and may even become so extreme at times that the train of thought has the appearance of being quite incoherent. Distractibility is a prominent feature and the patients are constantly diverted by inconsequential happenings in their environment. It is quite remarkable how such a patient who is apparently paying no heed to what is going on about him will catch a chance word or phrase uttered by some one, perhaps a considerable distance away, and introduce it into the stream of his conversation. Consciousness may be somewhat clouded and there may be at least apparent disorientation, particularly for persons. This apparent personal disorientation, however, is dependent in the main upon two factors. In the first instance the patient does not adequately perceive the environment, he does not dwell long enough upon any one particular element of it to comprehensively grasp it in the rapid and transitory survey which it receives from him; its elements are not adequately perceived and therefore are often misunderstood. Not infrequently the whole situation is further complicated by the wit reaction of the patient who gets a good deal of fun out of his facetious remarks and his apparently meaningless mistakes. These errors being not firmly fixed are frequently spontaneously corrected by the patient, at least at times.

The disorder of attention, flight of ideas and distractibility are all elements which produce a transitory and a superficial survey of the environment by prohibiting any fixation or dwelling upon any particular element of the environment or even of the ego and tend to produce a condition of the content of consciousness in which all of the ideas are given the same value. No one thing is attended to long enough to enhance its importance over that of others.

While hallucinations are not an essential part of the picture they may occur, but when they do, like all of the other elements, they tend to be only transitory and usually are rather simple and elementary in character.

The delusions also are inclined to be changeable. They partake characteristically, when present, of the grandiose character, but usually lack the element of extreme improba-

bility found in conditions of dementia præcox and general paresis. Occasionally a persecutory paranoid system of delusions develops in the manic phase of this disease, but this class of delusions is more apt to develop and present a fairly well organized system in the milder grades of excitement.

The psychomotor activity is constant. The patients are unable to remain at rest (pressure of activity), they run and jump and turn somersaults, wave the arms about, tear up clothing, destroy plants, break furniture, howl and yell all night long, and go almost absolutely without sleep. Genital excitement may be prominently in evidence. The excitement may be so great that the patient does not even take time to eat; food placed before him is perhaps tasted and then thrown about like everything else that comes his way, so that with the lack of nutrition, lack of sleep and with the unremitting activity, emaciation is a constant feature.

The emotional exaltation is marked and shown by boisterous laughter and remarks showing exaggerated ideas of self-esteem.

Delirious Mania. This condition is merely an aggravated state of the acute mania already described. The flight of ideas here has proceeded to almost complete incoherence. The activity is unremitting and consciousness is more clouded and hallucinations more in evidence.

Chronic Mania. There are a very few cases that pass into a condition of chronic mania and usually, though not always, have mild excitements that may last for a number of years.

Depressive Phase. Like the manic phase, this phase also manifests itself by three cardinal symptoms each diametrically opposed to the corresponding symptom of the manic phase, namely (1) difficulty of thinking, (2) psychomotor retardation, (3) emotional depression.

This group of symptoms may, as with the manic group, manifest itself with any degree of severity, and the three symptoms may severally and individually vary, irrespective

of each other. The retardation, for example, may be quite out of all proportion to the depression.

As with the manic phase, it is convenient to consider the depressive phase in three different grades.

Simple Retardation. The word retardation is here used to refer not only to psychomotor retardation, but to the difficulty of thinking also, probably quite similar phenomena, the one more particularly in the sphere of psychomotility. These patients move and speak slowly and perhaps in a low voice, by preference answering questions in monosyllables. These outward evidences of difficulty of thinking and moving are, however, more marked in the next stage of the depressive phase, that is, in acute melancholia, while here it is more usual to see the patients merely preferring to be by themselves, disinclined to associate with others, keeping to their room and quite unable to make any mental effort. They are not equal at all to going on with their work. They may not, for example, feel equal to writing letters or even to reading the newspaper.

Emotionally these patients are usually somewhat depressed, but the depression may not be especially marked, it may only appear on questioning. Consciousness is clear and the patients are fully oriented and often have a realization of their mental invalidism.

Acute Melancholia. In this grade of depression the three cardinal symptoms are manifested in a much more pronounced way. The patients are characteristically inactive, sitting by themselves, showing little or no tendency to associate with others, their movements are slow and deliberate (executive retardation) and it often takes a considerable time to initiate them (initial retardation). The speech is similarly affected; it is slow, often monosyllabic and sometimes almost inaudible. Initial retardation is noticeable here also. The emotional depression is profound and is indicated in the general attitude of the patient which is one of flexion of the body, the hands lying limp in the lap, the head inclined forward, the chin resting on the breast and a marked facial expression of sadness. The subjective state of these patients is described by a feeling of difficulty of thinking and grasping the meaning of

things and of their feeling of inadequacy, of incapacity for all effort or even thought. This general feeling of inadequacy of thinking as above described fits into and forms a part of the emotional attitude and acts with it in determining the character of the delusions. The delusions are typically self-accusatory and hypochondriacal. The patients think themselves responsible for all the sin, wickedness, privation and suffering in the world; they are the cause of the unfortunate condition of their fellow patients; they themselves have committed some great sin and their souls are forever lost. As they occupy themselves with their own moral states so they occupy themselves with their bodily condition and believe themselves sufferers from incurable disease, think that their organs are decayed, something has happened to their brains, their bowels are stopped up, their bones broken and other such somatopsychic ideas. When the organic sensations are altered patients have strange feelings which they interpret as indicating some mysterious thing going on within their body, and such sensations may be at the basis or associated with some of the hypochondriacal ideas. The emotional depression may at times reach a very high grade and express itself in anxiety attacks, moods of apprehension, fear of impending danger, a nameless dread of something going to happen and the like. The whole world is looked at, so to speak, through blue glasses. The sad, depressed mood colors every perception and so the perceptions are more or less incorrect and distorted to fit the mood.

Hallucinations may occur, but consciousness is usually clear and the patient well oriented. There may, however, be a lack of orientation toward their surroundings dependent upon the fact that they are wrapped up in their thoughts and the environment is not attended to.

Depressive Stupor. This is the third and most severe grade of the depressive phase. In this condition the retardation, both in the field of psychomotility and in that of thought, has proceeded to the extent that the patient lies wholly inactive and mute; he has to be tube-fed, and his every want administered to.

During this period of absolute inactivity it may be that

the patient is suffering from delusions and hallucinations of a depressive and horrifying nature which perhaps are shadowed forth by an anxious expression of countenance, but the details of which can only be learned after the patient has aroused sufficiently from his stupor to be able to express himself.

Benign Stupor. The mental symptoms of benign stupor are: Poverty of affect. The patients are apathetic to an extreme degree, exhibiting no interest in themselves or their surroundings, their faces are mask-like, their voices colorless. Sudden mood reactions may break through at rare intervals. Inactivity is a cardinal symptom, there being almost a complete conservation of all spontaneously initiated action and even of reactive movements. Even swallowing and winking may be inhibited. The thinking disorder is a constant feature. When the patient is at all accessible there seems to be a failure of intellectual functions and after recovery the memory is for the most part a blank as to occurrences during the stupor, even striking experiences. The peculiarity of the ideational content is a preoccupation with the theme of death. Probably related to this are the sudden suicidal outbreaks.

Chronic Depression. There are certain patients who present for long periods of time a depressed mood. These cases may be mild depressive phases of manic-depressive psychosis or they may be character anomalies, cases of constitutionally depressed mood and so show the close interrelations between the normal fluctuations of emotion and those that are pathological.

The Periodical Types. Under this head are included those forms of the manic-depressive psychosis which from time to time have been severally described as recurrent mania, periodic mania, intermittent mania, recurrent melancholia, insanity of double form, alternating insanity, circular insanity, etc.

All of these psychoses are merely different manifestations of manic-depressive psychosis, the manic and depressive stages being represented in various relations, often separated by a recovery interval. Thus recurrent mania would be recurrent attacks of a manic phase separated by

well intervals, similarly for recurrent melancholia, while alternating insanity would consist of manic and depressive attacks, each followed by a recovery interval; circular insanity, on the other hand, being cycles of manic and depressive phases without intervals of separation. The three phases—manic, depressive and lucid interval—may be combined in any possible way.

In a number of these cases, the attacks reproduce themselves often at very definite intervals with practically photographic accuracy so that the patient leads a life the events of which can be predicted with almost absolute precision. Such patients not infrequently know some little time beforehand when an attack is coming on.

It would seem that the patients who present such definite cycles occurring at stated intervals, each exactly like the others, belong to the group of cases with severe constitutional taint. In the other group of cases, that group in which external conditions seem to play a large part in the etiology of the several attacks, there is much less tendency to regularity in their occurrence, and as heretofore intimated, much greater hope for the results of therapeutics.

The following is the account of an intelligent woman of her feelings in both periods of excitement and depression:

"I have suffered all my life from excitements and depressions, although it was not until I was fifty-eight years of age that my family and I realized I was really mentally sick and required institutional care. During youth and middle age my excitements were of a mild character, and during these periods I considered myself normal. I felt peculiarly happy and care-free. I managed my household affairs with the greatest care. I entertained and mingled in society with pleasure and zest. I was lively, talkative and I have reason to believe I was witty and entertaining. I could work without an effort. I at times accomplished almost Herculean tasks. On one occasion I remember preparing and conducting a church entertainment by which the sum of $800 was raised. Of late years my excitements have grown more severe. I begin by taking an overactive interest in everything going on around me. Everything

seems rosy. I feel happy and nothing depresses me. I feel propelled by some unknown force to constant action. I am possessed with the idea of righting wrongs and straightening out things in general. All the faults in the administration of the ward, the hospital and the government must be corrected.

"My excitements have never led me to commit any acts of violence. I occupy myself largely in talking and writing letters. My room is often in disorder because I cannot stay at one job long enough to comple e it. As I feel these excitements approaching, I request he physician in charge of me to take up my parole, as I know I shall be moved to do and say many foolish things of which I will be ashamed later. No one who has not had experience can realize the mortification of having been insane.

"My depressions in early life were as mild as my excitements, the onset was gradual. I felt a disinclination to mingle in society. When forced to do so I sat like a 'dummy' and could think of nothing to say. My household duties became a burden. One after another of these was dropped until the care of the household was entirely given over to relatives and servants. I learned from experience a treatment of my own. As soon as I felt a depression approaching, I promptly dropped everything and left home for a time. I found by getting away from family cares and responsibilities, and from the demands of society, to some quiet spot, I could shorten the duration of these depressions. In recent years the depressions have appeared suddenly. One day I went to town to do some shopping for a friend. I went to a grocery store to make some purchases. It suddenly occurred to me that I could make these to much better advantage at the market only a block away. Suddenly I realized I did not have sufficient energy to go to the market and that another depression was upon me. It was with the greatest difficulty that I ordered the goods, paid for them and came home. At these times my brain feels paralyzed. I have not the strength or ambition to do anything. I am apprehensive lest some harm has befallen the members of my family, but to save my life I could not write or telephone to find out if my fears are true. I have

the impulse to act, but it seems as if something shuts down and prohibits action. I see my clothes becoming soiled—I know I should change them, but I cannot pull out the drawer of my bureau and get clean ones. This inertia is greater in the morning than at night. Before I came to the hospital for treatment I had servants who slept at home and came to my house early in the morning. When my husband was away and my children were small, it devolved upon me to admit these servants early in the morning. I knew that when morning came, to dress and go downstairs would be impossible. I solved my difficulty by dressing the night before and sleeping in my clothes. When the depression is most profound, I move in a fixed groove. I never vary a hair's breadth. At first I have a desire to remain in bed. Once this is overcome I have no choice but to remain up. I sit in the same seat and in the same attitude for weeks. As I come downstairs in the morning I am apprehensive lest my seat be taken, and I wonder what I shall do if it should be occupied, although the sitting room is well supplied with comfortable seats. I bring a shawl with me and place it in the chair so that no one will appropriate it while I am at breakfast.

"After each depression I suffer from intense pain in my back, side, shoulders and arms. This is dull and aching in character and remains with me for weeks after the depression has disappeared."

THE CYCLOTHYMIAS. This group of cases presents the mildest excitements and depressions. They deviate less from the normal than the other groups and are only considered separately because of their great practical importance. They are quite usually not recognized and the symptoms are attributed to all sorts of things other than the real trouble. It must not be lost sight of in considering these mild manic-depressive fluctuations that a slight depression may recur without the psychosis expressing itself by a fluctuation to the opposite condition of excitement and vice versa. So that the picture is seen of patients presenting from time to time mild degrees of depression or mild degrees of excitement without anything approaching delusional formation or disorders of the sensorium and there-

fore attracting no particular attention from the mental side. The following example illustrates this exceedingly well: He is a man who devotes himself largely to literary work, and the fluctuations in his mental state are shown excellently well by his ability to write. The onset of a depressive phase is usually shown by a gradual, though more or less rapid, falling off in his literary ability. He is first unable to compose, then he gets progressively less able to write until he is only able to write the simplest things. It is the same way in his reading. He gravitates all the way from reading conducted with his work down through the different grades of literature until he gets to fiction. He finally finds himself quite incapacitated, sitting for hours gazing out of the window or at a blank wall and, while rather enjoying company, it is almost impossible for him to initiate the procedure that is necessary to go anywhere. He finds it almost impossible to dress, to get out, to take the cars and the like. This state is almost entirely of retardation without marked emotional depression. During the opposite condition of affairs he has a feeling of well-being and efficiency in marked contrast to his feelings during the depressive period and finds himself quite able to work for long intervals very effectively.

The remarkable transitions from phase to phase are shown well by one of his experiences. One day, having been writing all the afternoon, he, as usual, went out to dinner, leaving his papers on the table, intending to resume work on his return. When he came back and took up the pen to write he found that the incubus of his depression was upon him. He had difficulty in finding words and finally after two hours' effort he gave it up. This was the beginning of a depression which lasted about a month. During this time he constantly tested his ability for composition but without favorable result. Almost exactly a month after this incident he undertook to answer some personal letters, intending to write only short letters of perhaps three or four pages, but when he started to write he found himself writing easily and his letters spontaneously expanded to eight or twelve pages and he went on into his work again.

Not a few so-called dipsomanias are really recurrent manic-depressive attacks in which the alcohol is resorted to shortly after the attack commences and then quite usually all the symptoms from which the patient suffers are attributed to the alcoholic indulgence. . . .

Perhaps the most important of the disturbances in this group of cases are the visceral disturbances. There are a large number of conditions, particularly the false gastropathies, enteropathies, cardiopathies of Dejerine, etc., many of which belong here. Inasmuch as the psychosis is not recognized these conditions are quite naturally credited with being the cause of the condition of the patient. Patients with mild depressions are called neurasthenic, those with mild excitements are called nervous and the accompanying physical condition is credited with making the trouble. The patient and the relatives consistently take this attitude and the physician naturally falls into it. No one wishes to acknowledge the possibility of a mental disorder, and therefore, these other explanations are readily accepted. In fact, the condition is hardly recognizable at its true value, even by the practiced observer, unless a full account of the patient's life is available.

The Mixed States. The mixed states are forms of manic-depressive psychosis in which the three cardinal symptoms of the manic and depressive phases are mixed so that the resulting state is neither one. They are: (1) maniacal stupor, (2) agitated depressions, (3) unproductive mania, (4) depressive mania, (5) depression with flight of ideas, (6) akinetic mania. It will suffice to merely mention the symptoms of these groups.

Maniacal Stupor. Emotional exaltation, decreased psychomotor activity, difficulty of thinking.

Agitated Depression. Emotional depression, increased psychomotor activity, flight of ideas.

Unproductive Mania. Emotional exaltation, increased psychomotor activity, difficulty of thinking.

Depressive Mania. Emotional depression, difficulty of thinking, increased psychomotor activity.

Depression With Flight of Ideas. Emotional depression, flight of ideas, decreased psychomotor activity.

Akinetic Mania. Emotional exaltation, flight of ideas, decreased psychomotor activity.

Still the possibilities are not exhausted. It is quite uncommon to see any one of the conditions already described continue pure from the commencement to the end of the attack. In the manic phase symptoms of depression not infrequently crop up and occupy the field temporarily, while during the depressive phase it is quite as common to note transitory periods of excitement. Then it is quite common for manic attacks to be preceded by a longer or shorter attack of depression and sometimes such a period of depression follows, not infrequently but partial depression, of the type of unproductive mania. The depressive phase shows similar variations, more particularly it is followed by a short period of exaltation.

Nature of Manic-Depressive Psychosis. This psychosis perhaps, as thoroughly as any other, has withstood throughout the years any attempt at understanding it, while as opposed to dementia præcox the symptoms of which appear quite unpsychological, the symptoms of the manic-depressive psychosis in either one of its phases, more particularly perhaps in the depressive phase, are quite psychological, that is, quite understandable. The patients, to begin with, present largely average types of personality before the advent of the psychosis, and during the symptoms of the psychosis they ordinarily are not so far disordered in their conduct or in the character of their ideas as to place them, so to speak, in a class by themselves. They are still quite like the rest of us. The roots of the psychosis appear to spring more distinctly from the usual life, the fluctuations of the emotions being quite comparable to the fluctuations that occur in every one.

However, it seemed quite impossible to understand how the patients could vary from one extreme to its diametrical opposite and what could possibly be the explanation of such shifts of position. For many years, under the domination

of Meynert, the changes were supposed to depend upon changes of blood supply, upon anemias and hyperemias. When psychiatry, however, advanced beyond such crass types of explanation it was left practically without anything to fall back upon. Recently, however, the suggestive work of Bleuler has seemed to indicate what may at bottom be the true explanation. He has demonstrated what he calls the ambivalency of ideas. This ambivalency gives, as he understands it, to the same idea two contrary feeling tones and invests the same thought simultaneously with a positive and a negative character. Along with this ambivalency there is an ambitendency which sets free with every tendency a counter-tendency. With this basal supposition, it can be understood why the fluctuation of the manic-depressive is a fluctuation between conditions which are diametrically opposed. If each idea has associated with it by preference the idea which is absolutely its opposite, if each feeling has associated with it by preference the feeling which represents its exact antithesis, then there is reason for understanding how the manic-depressive gravitates between these two extremes. It is the path of opposites which is met with at every turn in psychiatric experience, and which after all is nothing more than a universal attribute of all reality from action and reaction in the realm of physics to ambivalence in the realm of psychology. All nature shows these opposites. Nothing suggests white more surely than does black, nothing suggests love more readily than hate. The opposed ideas and feelings stand with relation to each other in the path of least resistance, and when one would go from a certain idea or a certain feeling in any direction he finds the path of the antithetical idea or feeling more easily passable than the path to any other goal. This fluctuation of the feelings along the path of opposites exhibits a close analogy to the mechanism of the compulsion neurosis considered as a fluctuation between love and hate. This explains some of the symptoms which can be seen, from this point of view, to be compromise formations. For example, one patient wills most of her property to her daughter (love) but so ties it up in a trust that she will never get it (hate). She has solved the problem of express-

ing both antithetical tendencies in the same act (the will).

Assuming the hypothesis of ambivalency and ambitendency, still what is the explanation of the affect fluctuations in this psychosis? Here as elsewhere in the mental field some fundamental psychic conflict undoubtedly has to be sought to which the patient is making efforts of adjustment. This is precisely the starting-point from which, for example, dementia præcox has to be viewed. But here are individuals who present a different possibility of reaction, a different reaction type to the conflict than do the præcox patients. This statement, of course, must not be taken as meaning any more than a mere putting into words of what is found, because it is not understood what the differences are that make different people react in different ways. Psychiatrists are only upon the verge of being able to ask such a question intelligently. They are not yet able fully to answer it. An indication of what is at the bottom of the manic-depressive reaction may perhaps be reached.

The manic-depressive psychosis may be conceived of as an effort at compromise and at defense, resulting from an endopsychic conflict. In the depressive phase the affect has broken through and invades consciousness, while in the manic phase the patient by feverish and restless activity, by a constant alertness, fights off every approach that might touch him on a painful point, that might reach a vulnerable spot. It would seem as if he were wildly beating about to keep off all intruders, not only real intruders, but all possible, prospective, or thought-of intruders. And so the manic patient is already quite inaccessible and all of his reactions are especially superficial, as witness the word associations and the clang associations. He moves over the surface, which he endeavors to cover completely, in order to prevent penetration at any point.

This constant activity of the manic, however, has another aspect than simply that of defense. In this constant activity of which such symptoms as flight of ideas, clang association and distractibility are types the patient is constantly occupied with reality. In fact he is so acutely interested in reality that little that occurs about him escapes him and he is constantly showing extremely keen powers of observa-

tion. This might be termed a flight into reality as a means of escaping from the conflict and as such stamps the psychosis as belonging to the extraverted type as distinguished from the introverted type (of which præcox is the best example) in which the libido turns back to reanimate channels in which it used to flow but which have long since been abandoned. Still this does not quite state the case. It has been found that, while the manic is headed toward and into reality, still if his productions be studied it will be evident that they are wish fulfillments and that in his regressions he is reanimating longed-for situations. The principle of ambivalency insures that the solution formulation of the conflict shall include both elements—the wished for as well as the tabooed.

Of special importance, however, seems the relation of extraversion to the relatively benign nature of the attacks as compared with the relatively malignant character of the introversion in præcox. The fact that the patient attempts to escape from his conflict by a flight into reality rather than by a path that leads, by introversion, through the conflict, as is so often the case in præcox, seems to insure that he again and again is able to rehabilitate himself. The efficiency of one's relation to reality is the measure of one's normality and so, in this psychosis, the constant effort to plunge into reality, to become immersed in it, to deal with it at every point, becomes a saving grace and is largely accountable for the frequent recoveries.

Course and Prognosis. The individual attacks vary in duration from a few days to several months. Recovery from the single attack is the rule while the likelihood of subsequent attacks is considerable. As pointed out previously, the severe constitutional types have a worse prognosis than those types in which the etiological factors are capable of removal. The disease pursues its course without any special tendency to deterioration.

Differential Diagnoses. It should, of course, be added that one must be careful and not confuse excitements and depressions that may have other origins as, for example, particularly paresis, the symptomatic and toxic psychoses and the more clearly psychogenic states such as prison psychosis—the so-called situation psychoses. . . .

INVOLUTIONAL MELANCHOLIA[1]

BY DR. AARON J. ROSANOFF

This disease occurs after forty years of age and seems to be in some way connected with the phenomena of organic retrogression beginning at this age; hence the name *"involutional melancholia."* The prodromal period, which is almost constant, indicates a profound, slow, and progressive change of the entire organism: the process of digestion is painful; there are anorexia, insomnia, irritability, unwarranted pessimism, and a tendency to rapid fatigue.

Finally the disease sets in, characterized from the beginning by intense *psychic pain.*

It presents itself with the train of physical and psychic symptoms already studied in connection with active depression. When associated with anxiety it gives rise to *anxious melancholia.*

The anxiety may result either in *agitation* (*melancholia agitata*) or in *stupor.* In the latter case the patient appears as though dumfounded by the pain. "A frightful internal anxiety constitutes the fundamental state, which torments him almost to suffocation."[2]

When the psychic pain is very marked, it entails sometimes a certain degree of *mental confusion* which is most frequently transitory and subject to the same fluctuations as the pain itself, of which it is a manifestation.

In cases of slight or moderate intensity, *lucidity* is perfect and sometimes permits the patient to analyze his case with considerable minuteness.

[1] Reprinted, by courtesy of the author, from Rosanoff's *Manual of Psychiatry* (6th ed.). John Wiley and Sons, Inc.

[2] Griesinger, *Pathologie und Therapie der psychischen Krankheiten.*

Association of ideas is sluggish, less so, however, than in the ordinary depressed form of manic-depressive psychoses. Between the cases in which the sadness clearly predominates and those in which the inhibition is the principal feature, there is a host of intermediary forms which establish an insensible transition between involutional melancholia and other manic-depressive psychoses.

The recent study of Dreyfus indicates clearly that the relationship between involutional melancholia and manic-depressive psychoses is, indeed, a close one. This study consists in a careful investigation of the entire subsequent course of all cases admitted to the Heidelberg clinic since 1892 and classified as involutional melancholia. The facts revealed by the investigation are: the great majority of the cases which had not terminated in death through some complication resulted in complete recovery; in a small percentage of cases deterioration ultimately occurred apparently on a basis of cerebral arteriosclerosis which such cases seem to be particularly prone to develop; more than half of the cases had more than one attack; in many cases manic symptoms were observed: fleeting euphoria, irritability, loquaciousness, flight of ideas, etc. These results led Dreyfus to the conclusion that involutional melancholia was but a special mixed form of manic-depressive psychoses. . . .

To the psychic phenomena are added physical disorders, most of which have already been considered:

Respiratory and circulatory disturbances which are dependent upon the depression and anxiety.

Disturbances of digestive functions; anorexia, dyspepsia, painful digestion, constipation.

Impairment of the general nutrition and rapid loss of flesh. The latter symptom is of particular importance; a rise in weight usually indicates beginning convalescence.

The menses are usually suppressed. Their reappearance has the same prognostic significance as the return of normal weight; it indicates the approach of recovery.

Finally, there are various nervous troubles: headache, palpitation, tremors, hysteriform crises, and insomnia.

These are the fundamental symptoms of involutional

melancholia in its simplest form and uncomplicated by delusions. This form is rare; generally the disease assumes one of the following two forms, or some combination of the two: *anxious melancholia* and *delusional melancholia.*

Anxious melancholia. The psychic pain, which is here very intense, manifests itself by mental and physical symptoms of anxiety: more or less complex cessation of mental processes, in some cases a certain degree of mental confusion at the time of paroxysms of anxiety; and extremely distressing sense of constriction generally localized in the precardial region or in the throat, less often in the head; pallor and pinched expression of the face, coldness and cyanosis of the extremities, irregular and shallow respirations; lowering of blood pressure; small compressible pulse, either rapid or slow; dilation of the pupils.

From the point of view of the reactions anxious melancholia is characterized either by agitation or by stupor.

The *agitation* of melancholia presents the appearance of despair: the patient wrings his hands, strikes his head against the walls, and gives vent to cries and lamentations. It is monotonous and often marked by very pronounced negativism. The phenomena of agitation are sometimes purely impulsive in origin and occur in the shape of sudden attacks which may be very brief. During such attacks the patients may display a tendency to violent acts of danger to themselves or to others (suicidal or homicidal attempts). Such paroxysms constitute the so-called *raptus melancholicus.*

Psychic pain may, like physical pain, paralyze more or less completely all mental functions. Thus is explained the manner in which anxious melancholia may become transformed into stuporous melancholia: these two forms, seemingly so different, are in reality closely related. The psychic inhibition which characterizes stuporous melancholia is essentially a secondary phenomenon.

Anxious melancholia sometimes exists in a state of purity, either as agitated melancholia or as stuporous melancholia. Much more often it is complicated by delusions.

Delusional Melancholia. All varieties of melancholy de-

lusions are encountered in this affection: ideas of culpability, of humility, of ruin, hypochondriacal ideas, and ideas of negation. It is not uncommon for persecutory ideas to occur in combination with the melancholy ideas.

Hallucinations are not frequent. The least rare are, according to Séglas, those of vision and of the muscular sense. Those of hearing, taste, and smell are occasionally met with, while those of general sensibility are altogether exceptional.

Illusions of all sorts are, on the contrary, frequent. They often assume the form of *mistakes of identity.*

Finally, *delusional interpretations* are constant. The patient hears the noise of hammer-strokes in the vicinity and thinks a scaffold is being built for him. He hears the sound of voices in the street and thinks the mob is going to seize and lynch him, etc.

The reactions are usually in harmony with the melancholy state and with the nature of the delusions. Sometimes, under the influence of anxiety which in many cases accompanies the delusions, the reactions assume an exclusively automatic character; it is to be noted that negativism is not uncommon.

The following case illustrates both delusional and anxious melancholia:

Margaret L., fifty-eight years old.—Paternal and maternal heredity: father was alcoholic, died of disease of the liver; mother eccentric, unduly irritable; maternal aunt committed suicide.—The patient has always been nervous and sensitive. She has been, however, of normal intelligence and always attended properly to the work of her home and her family. She has two daughters, respectively thirty and twenty-five years old, both normal. Menstruation ceased two years ago.

The mental symptoms began with a state of general depression and discouragement. On being invited to a christening of a little boy, she refused to go, giving as her reason that life is a burden and that there is no cause for rejoicing in the birth of a child. After several weeks she began to show very marked uneasiness and a little later delusional interpretations. She saw wagons passing by the

house loaded with various objects, furniture, bedding, barrels, sacks of flour; she heard the drivers cracking their whips; all this alarmed her greatly and she asked her husband whether all this did not signify that she was to be thrown out of the house and left to starve to death. She noticed also that the neighbors looked at her queerly whenever she met them. At the same time physical symptoms appeared: complete loss of appetite, headache, insomnia. About two weeks later, namely, March 20, 1900, she developed an idea of self-accusation. About twenty-five years ago she lost a little daughter from croup. Did not this child die because its mother had left it one day with its feet wet? This idea at first had the character of an imperative idea; the patient knew it was false and tried to drive it away; it, however, grew more and more dominating, and was finally accepted by the patient as true: the imperative idea had become a *fixed idea.* The psychic pain increased steadily. New delusions sprang up, the first one, however, still remaining active. On April 12, the patient went to the police headquarters carrying a bundle of clothing; this, she said, was for the poor girls who had been robbed of everything and thrown out into the street. At the same time she begged the police authorities to send men to protect those unfortunate women whom the Prussians were about to ravish.

On being taken to a sanatorium she did not cease to wail and lament, accusing herself, as formerly, of the death of her little girl, later of the illness of her husband, who really did have heart trouble. Gradually the delusions grew. She claimed she had brought upon her relatives such disgrace and misery that they all committed suicide; the letters which she is supposed to receive from them are false; no doubt this is done to console her; everybody has been too good to her; such a nasty creature should have her head chopped off. There she is, well fed and housed, and warmly dressed, yet they know well that she has no money to pay for all this. But this cannot last; pretty soon the day will come when they will put her out to go and beg. She developed a few hallucinations of sight, of hearing, and of muscular sensibility: several times she saw before her a pool of

blood; also several times she heard the voices of her children crying: "Bread! Give us bread!" Finally she complained of an inner voice coming from her breast, which made her say against her own will: "Slut! slut!" She cried loudly, begging to be put to death; has made repeated attempts to commit suicide; from April 21 to October 30 five such attempts were counted, three of which were by hanging. For a time she refused food; after being tube-fed for two days, she began to eat again, although with much difficulty.

Considerable emaciation. Tongue coated. Breath very foul. Constipation. Slight trace of albumin in the urine.

Such is the fundamental and habitual state of the patient. The anxiety, without being ever entirely wanting, presents, however, periods of exacerbation, so that the patient at times shows the typical picture of anxious melancholia. During such paroxysms the patient seems to be literally suffocating. She seems to be striving to throw off a weight from her chest; she pulls her hair, strikes herself in the face, and scratches at the walls of her room until her fingers bleed. When her agitation is at its height it is impossible to obtain from her a response to any question. She merely utters inarticulate cries or repeats in a low, scarcely audible voice: "My God! . . . My God! . . ." Her consciousness is then evidently profoundly affected and it seems that even delusions at such times disappear under the influence of the psychic pain and anxiety.

Toward the latter part of November, 1900, the general condition of the patient improved. Her appetite became better. The delusions persisted and the patient continued her lamentation, but the reactions became less pronounced. Little by little the delusions also became less active. A certain degree of mental activity returned. Toward the middle of December the patient was able to do some manual work. She returned home, completely cured, February 6, 1901. At the present time (1905) she is still perfectly well.

Prognosis. Melancholia may terminate in:

(a) Complete recovery, 67 per cent;

(b) Dementia due to the development of cerebral arteriosclerosis, 8 per cent;

(c) Death, 25 per cent, which may be due to:

(I) Suicide, which is the more likely to occur the more pronounced the psychic pain and the less marked the inhibition. The melancholiac may commit suicide at any period of his illness, even during convalescence, when on account of a real or fictitious gayety, supervision over him is relaxed;

(II) Melancholic wasting, the principal factors of which are intense sadness, anxiety, agitation, sleeplessness, and insufficient alimentation occasioned by a poor condition of the digestive tract, a delusion, or a suicidal idea;

(III) Some complication the occurrence of which is favored by the defective nutrition of the tissues: pneumonia, influenza, tuberculosis.

The duration of the affection is very variable, from several weeks to a few years. . . .

TREATMENT. The principal indications are:

To watch the patient with a view to prevention of suicide;

To support his strength;

To calm agitation if there is any;

To pay special attention to the alimentation.

The first three indications are admirably fulfilled by rest in bed.

Forced alimentation is often necessary to fulfill the fourth.

Finally, continuous warm baths may be of service in the agitated forms.

THE PRECIPITATING SITUATION IN MENTAL DISEASE[1]

BY DR. EDWARD A. STRECKER

INTRODUCTION

The thought which prompts this paper is not naïve enough to consider it a contribution to the study of etiology of mental disease. With but few striking exceptions and in spite of promising progress, actual and incontrovertible evidence of psychiatric causation is still lacking. This is particularly true of the emotional and schizophrenic psychoses.

We have merely made an effort to formulate some judgment concerning the precipitating situations in 100 cases of dementia præcox and in a similar number of manic-depressive psychoses. The cases were unselected and practically constitute consecutive admissions. We were fortunate in being able to deal with rather complete histories. Usually there were several sources of information; relatives, friends, medical attendants and sometimes the patient.

A situation was considered precipitating when it seemed to have a probable or even vaguely possible influence on the production of the psychosis. The length of time over which it was supposed to have been operative was very liberally interpreted. This was done in order to avoid a faulty cross-section viewpoint and to eliminate the possible error of overlooking slowly unfolding contributory elements. The addition and summation of a number of irritative and recurring difficulties probably reaches or may even exceed in importance the effect of a single dramatic incident.

The precipitating situation was regarded as somatic or

[1] Reprinted, by courtesy of the author and the editor, from the *American Journal of Psychiatry*, vol. 1. [Title is here abbreviated.]

psychic when it dealt with organic or psychogenic reasons and somato-psychic or psycho-somatic according to the apparent relative importance of one or the other of these features in a combination case.

A second grouping was: significant, important, doubtful, [etc.]. We took into account, principally, the intrinsic value of the entire situation and its chronological bearing on the onset of the mental disease. Here, of course, the investigation is open to criticism. What may have appeared significant or important to the author may seem doubtful or even insignificant to another observer. Though we have tried to eliminate bias yet the personal equation cannot wholly be set aside. A physical factor is exceedingly difficult to evaluate and a psychogenic element presents almost insuperable obstacles to sound judgment. For instance, an unfortunate love affair may seem causal in a given instance, yet it cannot be judged only in such a restricted sense, but broadly as to the influence it might exert on the normal, or better still, average man or woman. . . .

SUMMARY OF SITUATIONS

The actual situations are presented in the following list. In the first column is given the case number and the initials P, S, PS, or SP, indicating respectively psychic, somatic, psycho-somatic, or somato-psychic:

[Note.—Only the *first twenty-five per cent.* of the cases (suffering from each psychosis) are reprinted here. Since the cases are arranged in order of the importance of the precipitating causes, it must be borne in mind that many cases developed from minor precipitating causes, and even that some developed in the absence of known precipitating causes.—Ed.]

SIGNIFICANT

Manic-depressive

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 1 PS	1st	In constant fear of drunkard husband who abused and beat her.	Overworked and fatigued to an extreme degree. Weight down to 97 lbs.
No. 2 SP	1st	Husband a drunkard who abused patient. Very poor. Four small children.	Very poor health. Had arthritis, nephritis, chronic cough (probably tuberculosis) and hyperthyroidism.
No. 3 SP(?)	2d	Worry about husband's immoral relations with her sister.	Influenza one week before onset. Climacteric. Lacerated and infected pelvis.
No. 4 SP	1st	Worry about secret illegitimate pregnancy and criminal operation.	A combination of septic infection and an attack of influenza.

IMPORTANT

No. 5	1st	Husband lived with another woman.	Climacteric.
No. 6 SP	2d	Had to bear brunt of difficult family situation. Worried about sister's insanity and brother's death.	Post-typhoidal high blood-pressure and nephritis. Taught both day and night school; became extremely fatigued.
No. 7 SP	2d	Worry about poverty. Came home from psychopathic hospital to find that her four children had whooping cough. Oldest and favorite child died.	While pregnant developed whooping cough. Reached a point of extreme fatigue nursing infant and four sick children. Practically no sleep.

IMPORTANT—(*Continued*)

Manic-depressive

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 8 SP	2d	Worried about family.	Always overworked, often 16 hours daily. Pericarditis; probably tuberculosis; surgical operation and artificial climacteric.
No. 9 PS	1st	Pregnant. Husband unfaithful and alcoholic. Unable to provide for three children.	Ill-health. Fractured, painful coccyx. Surgical operation.
No. 10 S	1st	.....	A severe attack of toxic influenza with return to work before complete recovery.
No. 11 S	1st	.....	Influenza. Returned to work too soon. Had as sequels—infected throat and ears and abscessed teeth.
No. 12 PS	1st	Worried because of illicit sexual relations through which she contracted Neiser's disease.	Fatigued from overwork. Anemic. Probably had infected tubes and ovaries. Automobile accident.
No. 13 PS	1st	Worried constantly about her husband who did not support her. He committed suicide a year ago.	Climacteric. Very much run down physically.
No. 14	1st	After being married for two years, her husband, to whom she was deeply attached, developed tuberculosis and the patient nursed him for 10 years until his death.	Toxic thyroid.

IMPORTANT—(*Continued*)

Manic-depressive

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 15 S	2d	.....	Always delicate. Diabetes. Her attacks seem to be associated with the presence of dextrose in the urine. Was exhausted and careless of diet.
No. 16 S	1st	.....	Secretly taking large doses of thyroid ext. and was subsequently operated on (thyroidectomy) when toxic thyroid symptoms presented.
No. 17 PS	1st	Worried about trouble with school board and hasty resignation.	Pneumonia and returned to teaching before complete recovery. Gastric symptoms, hives and shingles.
No. 18 SP	1st	Worried about poor circumstances, death of one child and ill health of the other children.	Overworked. Severe influenza, followed by nephritis.
No. 19 PS	1st	Following death of husband, his mother and an alcoholic son caused her constant trouble and worry and finally defrauded her of her property.	Ill-health and climacteric with loss of weight amounting to 30 lbs.
No. 20 PS	2d	Constantly worried and frightened by husband's ill-treatment and his and her mother-in-law's threat to desert her and take the children. Frightened by fire in house.	Ill-health and undernourishment.

IMPORTANT—(*Continued*)

Manic-depressive

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 21 PS	1st	Left alone by death of two sisters and mother. Worried over loss of most of her life's savings.	Overworked nursing two sisters. Worked hard as banker's assistant.
No. 22 SP	1st	Niece died following attempted abortion and this the patient associated with her own self-induced abortion.	Thyroid toxic symptoms. Thyroidectomy Recurrence of symptoms. Nephritis. Climacteric.
No. 23 SP	1st	Husband died four years ago and left her destitute with five small children.	Very severe toxic influenza.
No. 24 SP	2d	Worry about a son's secret and ill-advised marriage.	Advanced thyroid disease, heart disease and arteriosclerosis.
No. 25 SP (?)	1st	Worry because daughter eloped with deformed undersized man who became insane.	Physical exhaustion and heart and kidney disease.

SIGNIFICANT

Dementia præcox

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 1 SP	1st	Death of brother and favorite aunt. Worry about a sick sister.	Appendectomy and kidney operation. Several years of indigestion and dysmenorrhea. Influenza, pneumonia, and pleurisy. Second attack of pneumonia and pleurisy. Exhaustion.

SIGNIFICANT—(*Continued*)

Dementia præcox

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 2 S	1st	.....	Two surgical operations. Severe influenza followed by toxic state.
No. 3 SP	1st	Husband not congenial. Worried during pregnancy.	An attack of influenza without medical attention. Childbirth succeeded by severe gastro-intestinal symptoms and physical depression.
No. 4 PS	2d	Husband worthless and probably drug addict. Treated her badly. Child to support.	Two miscarriages.
No. 5 PS	1st	Two unhappy marriages. Poor circumstances.	Severe attack of influenza.
No. 6 SP	1st	Married foreigner and could not accustom herself to his mode of living.	An instrumental labor. Two attacks of influenza followed by "glandular swellings" and gastric symptoms.
No. 7 SP	1st	Constantly worried about children. Grieved by death of one of them.	Two attacks of erysipelas. Had three children in three years. Overworked nursing sick child. Often up all night.
No. 8 I'S (?)	1st	Husband ill-treated her. Died and left her penniless.	Difficult, instrumental labor followed by severe hemorrhage.
No. 9 S	1st	.....	Severe attack of influenza.
No. 10 S	1st	.....	Miscarriage. Severe attack of influenza for which the patient took "serum treatment" and continued working.

SIGNIFICANT—(*Continued*)

Dementia præcox

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 11 S	1st	.....	Mild influenza. Childbirth followed by septic infection and nephritis.
No. 12 S	1st	.....	Influenza. Childbirth two weeks after recovery. Heart and uterine disease. Hemorrhoids and chronic constipation.
No. 13 SP	1st	Greatly shocked when son who was very young announced his intention of marrying.	Climacteric. Influenza.
No. 14 SP	1st	Worry about sick children.	Had three children in 3 yrs. Shortly after last confinement all the children were critically ill and patient lost much weight and sleep.
No. 15 SP	1st	Disappointed over failure of theatrical career.	Poor hygienic surroundings, insufficient food, overwork, fatigue. Typhoid followed by heart disease.
No. 16 SP	1st	Love affair.	Severe influenza followed by encephalitic (?) symptoms.
No. 17 S	2d (?)	.....	Always had dysmenorrhea. Influenza and pleurisy. Attempted to work before she was well.
No. 18 PS(?)	1st	Death of husband. Sudden death of convalescent patient.	Constantly nursed husband who became helpless cripple soon after their marriage. Exhausted physically but took up training course in nursing.

SIGNIFICANT—(*Continued*)

Dementia præcox

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 19 S	1st	.....	Tremendous amount of overwork, public speaking, etc. Poor food, loss of weight. Anemic. Went to France and contracted influenza.
No. 20 SP(?)	1st	Husband's neglect. Poverty.	Difficult instrumental labor followed by infections.

DOUBTFUL

Dementia præcox

CASE NO.	NO. OF ATTACK	PSYCHIC	SOMATIC
No. 21 SP(?)	1st	Anonymous communications to the effect that her husband was unfaithful to her.	Protracted, difficult and instrumental labor.
No. 22 PS	1st	"Nervous" at establishment of menses. Love affair. (?) Frightened by incidents of Mexican revolution.	Mild hyperthyroid symptoms.
No. 23 P	1st	Death of father.	.....
No. 24 S	1st	.....	Mild influenza.
No. 25 S	....	.....	Appendectomy, oöphorectomy. Extreme constipation.

PERSONALITY AND OUTCOME[1]

BY DR. EARL D. BOND

Certain ideas about the personality behind the psychosis have been brought to the attention of the psychiatrist. The theory set forth by Meyer of habit-disorganization, the description by Hoch of the shut-in personality, the emphasis placed by Freud and Jung on lack of adaptation in the sexual sphere, have brought into prominence mental factors and personality as causes of mental disease.

With these writers the important method of attack has been the thorough analysis of the development of unhealthy reactions in the individual case; in the present paper, on the contrary, an attempt is made to give a superficial survey of personalities and outcome. . . .

TABLE IV

PSYCHOSES DEVELOPED IN DIFFERENT PERSONALITIES

Read columns down. Fractions omitted	Social	Seclusive
Manic-depressive	50	16
Senile, arterio-sclerotic and involution psychoses	13	0
Dementia præcox	0	54
Constitutionally inferior	0	13
Alcohol, general paralysis	13	4
Cerebral tumor or hemorrhage epilepsy, exophthalmic goiter	8	0
Undiagnosticated	16	13
	100%	100%
Number of cases	38	22

[1] Reprinted, by courtesy of the author and the editor, from the *American Journal of Insanity* (now the *American Journal of Psychiatry*), vol. 69. [Title is here abbreviated.]

In the two hundred consecutive cases thirty-eight were described as social; what has become of them in the following four or five years? What has become of the seclusive cases? Table IV answers the preliminary question; in what proportions did those possessed of a certain kind of personality succumb to the different disease-forms?

The outcome in the 38 cases especially described as social may be stated as follows:

The average age at onset of first attack was 39.

19 became manic-depressive cases; of these

13 recovered.

3 died by suicide.

2 were deported and not again heard from, and

1 was discharged improved.

The average age at first breakdown was 35.

2 became epileptic at 33 and 42.

6 succumbed to alcohol, syphilis, or general paralysis, at an average age of 35.

5 reached the average of 65 before succumbing to psychoses characteristic of the involution period.

6 remained unclassified; of these

3 recovered.

3 left the hospital and are lost.

The average age at first attack was 35.

Similarly, the outcome in the 22 cases described as seclusive is as follows:

The average age at onset of first attack was 26.

3 became manic-depressive cases and recovered, average age 33.

12 became dementia præcox; of these

2 died.

10 remain in hospital.

3 were constitutionally inferior and were not reckoned in the age averages.

1 acquired acute alcoholic insanity at 37, and recovered; the meager description reads only "melancholy and reserved."

3 remain unclassified; of these

1 died, "always abnormal," worse at 53.

1 discharged "much improved" and lost, onset at 19.
1 still in hospital, onset at 35.

Between these two groups there is a striking difference as regards hospital residence. The social personalities have been able to last 13 years longer than the seclusive without breaking down. Leaving out those cases evidently inferior from birth, those in whom there is an evident exogenous causal factor (alcohol, syphilis), and those who have been able to reach the declining years of life without upset, we find 50 per cent of the seclusive groups still under institutional care in contrast with only 2½ per cent of the social group.

OTHER TWISTS IN PERSONALITY

(Hysteria, Morbid Fears, Suggestions, etc.)

IRENE[1]

BY DR. PIERRE JANET

We must remember that this woman's death has been very moving and dramatic. The poor woman, who had reached the last stage of consumption, lived alone with her daughter in a poor garret. Death came slowly, with suffocation, blood-vomiting, and all its frightful procession of symptoms. The girl struggled hopelessly against the impossible. She watched her mother during sixty nights, working at her sewing-machine to earn a few pennies necessary to sustain their lives. After the mother's death she tried to revive the corpse, to call the breath back again; then as she put the limbs upright, the body fell to the floor and it took infinite exertion to lift it again into the bed. You may picture to yourself all that frightful scene. Some time after the funeral, curious and impressive symptoms began.

The crises last for hours, and they show a splendid dramatic performance, for no actress could rehearse those lugubrious scenes with such perfection. The young girl has the singular habit of acting again all the events that took place at her mother's death, without forgetting the least detail. Sometimes she only speaks, relating all that happened with great volubility, putting questions and answers in turn, or asking questions only, and seeming to listen for the answer; sometimes she only sees the sight, looking with frightened face and staring on the various scenes, and acting according to what she sees. At other times, she combines all hallucinations, words, and acts, and seems to play a very singular drama. When, in her drama, death has taken place, she carries on the same idea, and makes everything ready for her own suicide. She discusses it aloud,

[1] Reprinted from *The Major Symptoms of Hysteria,* by courtesy of the author and the publishers, The Macmillan Company.

seems to speak with her mother, to receive advice from her; she fancies she will try to be run over by a locomotive. That detail is also a recollection of a real event of her life. She fancies she is on the way, stretches herself out on the floor of the room, waiting for death, with mingled dread and impatience. She poses, and wears on her face expressions really worthy of admiration, which remain fixed during several minutes. The train arrives before her staring eyes, she utters a terrible shriek, and falls back motionless, as if she were dead. She soon gets up and begins acting over again one of the preceding scenes. In fact, one of the characteristics of these somnambulisms is that they repeat themselves indefinitely. Not only the different attacks are exactly alike, repeating the same movements, expressions, and words, but in the course of the same attack, when it has lasted a certain time, the same scene may be repeated again exactly in the same way five or ten times. At last, the agitation seems to wear out, the dream grows less clear, and, gradually or suddenly, according to the cases, the patient comes back to her normal consciousness, takes up her ordinary business, quite undisturbed by what has happened. . . .

Let us take up the case of that young girl, Irène, who acts during her somnambulism the scene of her mother's death with such apparent precision. Let us watch her during the intervals of her fits, during the period in which she seems to be normal: we shall soon notice that even at that time she is different from what she was before. Her relatives, when she was conveyed to the hospital, said to us: "She has grown callous and insensible, she has soon forgotten her mother's death, and does not seem to remember her illness." That remark seems amazing; it is, however, true that this young girl is unable to tell us what brought about her illness, for the good reason that she has quite forgotten the dramatic event that happened three months ago. "I know very well that my mother must be dead," she says, "since I have been told so several times, since I see her no more, and since I am in mourning; but I really feel

astonished at it. When did she die? What did she die from? Was I not by her to take care of her? There is something I do not understand. Why, loving her as I did, do I not feel more sorrow for her death? I can't grieve; I feel as if her absence was nothing to me, as if she were traveling, and would soon come back." The same thing happens if you put to her questions about any of the events that happened during those three months before her mother's death. If you ask her about the illness, the mishaps, the nightly staying up, anxieties about money, the quarrels with her drunken father,—all these things have quite vanished from her mind. If we had time to dwell upon that case, we should have seen these many curious instances: the filial love, the feeling of affection she had felt for her mother, have quite vanished. It looks as if there were a gap as well in the feelings as in the memory. But I shall insist only on one point: the loss of memory bears not only, as is generally believed, on the period of somnambulism, on the scene of delirium; the loss of memory bears also on the event that has given birth to that delirium, on all the facts that are connected with it, on the feelings that are related to it.

A CASE OF CLAUSTROPHOBIA[1]

BY DR. W. H. R. RIVERS

The case I am about to record is that of a medical man, aged thirty-one, who from childhood has suffered from a dread of being in an enclosed space, and especially of being under conditions which would interfere with his speedy escape into the open.

When I saw him first his earliest memory of this dread went back to the time when at the age of six he slept with his eldet brother in what is known in Scotland as a box-bed. The bed stood in a recess with doors which could be closed so as to give the appearance of a sitting room. The child slept on the inner side of the bed next to the wall, and he still vividly remembers his fear and the desire to get out of bed, which he did not satisfy for fear of waking his brother. He would lie in a state of terror wondering if he would be able to get out if the need arose.

About six years ago, while a medical student, he heard of a German, whom I will call A., who received patients into his house in order to cure them of stammering and other nervous ailments. . . . He was told that the cause of his trouble certainly lay in some forgotten experience of childhood of a sexual nature. When he related his dreams they were invariably interpreted by means of symbolism of a sexual character. . . . It is a striking feature of the process of examination and treatment to which the patient was subjected that it failed to discover the special dread of closed spaces from which he suffered.

In obtaining his history I learnt about his interest in Freud, and about the previous attempts to remedy his condition by means of psycho-analysis. It was only when I ex-

[1] Reprinted, by courtesy of the editors, from the *Lancet*, of August 18, 1917.

plained to him my views concerning the exaggerated interest in sex shown by Freud and his disciples that he learnt for the first time that forgotten experience of other than a sexual kind might take a part in the production of nervous states. It was agreed that "psycho-analysis" should be given a fresh trial from this point of view.

The next interview was devoted to a full inquiry into his previous experience in analysis, the results of which have already been given. As a preliminary to the following sitting I have asked him to remember as fully as possible any dreams he might have in the interval, and to record any memories which came into his mind while thinking over the dreams. . . .

Three nights later he had another dream. As he lay in bed thinking over the dream, there came into his mind an incident dating back to three or four years of age which had so greatly affected him at the time that it now seemed to the patient almost incredible that it could ever have gone out of his mind, and yet it had so completely gone from his manifest memory that attempts prolonged over years had failed to resuscitate it. The incident was of a kind which convinced him at once that the long-sought memory had been found. Unfortunately his interest in the regained memory was so great that the dream which had suggested it was completely forgotten and all attempts to recall it were unavailing.

The incident which he remembered was a visit to an old rag-and-bone merchant who lived near a house which his parents then occupied. This old man was in the habit of giving boys a halfpenny when they took to him anything of value. The child had found something and had taken it alone to the house of the old man. He had been admitted through a dark narrow passage from which he entered the house by a turning about half-way along the passage. At the end of the passage was a brown spaniel. Having received his reward, the child came out alone to find the door shut. He was too small to open the door, and the dog at the other end of the passage began to growl. The child was terrified. His state of terror came back to him vividly as the incident returned to his mind after all the years of ob-

livion in which it had lain. The influence which the incident made on his mind is shown by his recollection that ever afterwards he was afraid to pass the house of the old man, and if forced to do so, always kept to the opposite side of the street.

Ten days later the patient dreamed that he visited Edinburgh for the purpose of taking the Diploma in Psychological Medicine. As he lay in bed thinking over his dream and its possible antecedents, he found that he was saying to himself over and over again the name "McCann." He could not at first remember that he knew any one so called, but it suddenly flashed on his mind that it was the name of the old rag-and-bone merchant in whose house he had been terrified.

One thing was needed to make the story complete. It seemed possible that these thoughts, recalled in consequence of thinking over dreams, might be purely fictitious. It might be that in his intense desire to find some experience of childhood which would explain his dread, the patient might have dreamed, or thought of, purely imaginary incidents which had been mistaken for real memories. Luckily the patient's parents are still alive, and on inquiry from them it was learnt that an old rag-and-bone merchant had lived in the neighborhood in such a house as the patient remembered and that his name was McCann. . . .

The previous failure of the patient to recover his infantile experience is to be explained, partly by the exclusively sexual direction of his interest, partly by the process of examination and inquiry having failed to start from the dread of closed spaces to which the infantile experience has so obvious a relation. A problem which remains for consideration is whether the later success was merely due to these two faults having been remedied, or whether there was any positive virtue in the special method, which was then employed. This method is essentially that of free association as understood by Freud—the method of "abstraction" of Morton Prince—but starting from the incidents of a dream and carried out during the time immediately following the dream. In my own experience I have found this time especially favorable for the recovery of memo-

ries, the state of half-wakefulness seeming to be especially favorable to the freedom of association. The employment of free association under these conditions must, except under very special circumstances, be conducted in the main by the patient himself. . . .

It would seem probable that the phobia was accentuated and fixed later by his experience at the age of six, when night after night he lay in the box-bed, fearing to show any signs of fear owing to the presence of his brother. The process seems to have been one in which the great potentialities of an infantile impression were developed and fixed so that the emotional condition associated with the experience of the infant came to form part of the constitution of the boy and man. It is possibly owing to this later experience that the dread which was to occupy and often master the mind of the patient for nearly thirty years had as its object the narrow space rather than the dog which was the more immediate cause of the child's terror. . . .

There is no doubt that the recovery of the forgotten experience of my patient had a great effect on his state. A few days after recalling the memory he sat without disturbance in the middle of a crowded picture-house under conditions which for years before would have given him the most serious discomfort and dread. The patient himself was so confident that he wished me to lock him in some subterranean chamber of the hospital, but I need hardly say that I declined to put him to any such heroic test. He has since traveled in the tube-railway with no discomfort whatever, so that the ordinary conditions which had brought his phobia into activity for many years no longer have this effect. He has even been down a coal-mine, when he went for more than a mile along narrow underground passages, the mere thought of which would once have made him shrink in horror. A striking sequel of the recovery of his infantile memory is that terrifying dreams of being unable to escape from enclosed spaces from which he formerly suffered now trouble him no longer, and he had a dream, in which he found himself in a narrow cell in the company of a bloodhound, and was amazed in the dream that he should be so happy and comfortable in this situation.

THE PSYCHOLOGY OF FUNCTIONAL NEUROSES [1]

BY DR. H. L. HOLLINGWORTH

Hamilton long ago used the term "redintegration" to indicate the tendency of a complex idea to be reinstated upon the occurrence of one of its constituent parts. This atomic conception of the nature of an "idea" we may willingly relinquish, even though the substitution of "cortical pattern" for "idea" makes the term entirely compatible with current neurological theory. But the redintegrative mechanism, whereby a part reinstates a previous whole, is one of the most enlightening concepts ever offered to psychology, and, as the writer is convinced, to neuropsychiatry also.

If we make certain changes in the materials involved in the redintegrative process, it can be shown with little difficulty that this mechanism is most faithfully applicable to the psychoneurotic picture. The nature of the changes will be suggested by a statement of the nature of the redintegrative mechanism, as this mechanism is here conceived. Redintegration is to be conceived as that type of process in which a part of a complex stimulus provokes the complete reaction that was previously made to the complex stimulus as a whole. This is not precisely Hamilton's use of the term "redintegration," but the process is so similar that the term may be used here without injustice, since no better one suggests itself.

That a "part of an idea" may occur may be doubted, hence Hamilton's use of the concept fell into disrepute. But that a part of a stimulus may occur no one will probably dispute, and that such a partial stimulus may provoke a reaction previously made to the complete stimulus, may

[1] From *The Psychology of Functional Neuroses.* Reprinted by courtesy of the author and the publishers, D. Appleton and Company, New York.

be easily demonstrated. A child is frightened by a large, black, growling and moving quadruped. Both stimulus and reaction are complex. On a later occasion the growl alone provokes the entire fright reaction, even when made by a parent crawling on all fours, or hiding behind the door. This is the redintegrative mechanism. Under certain conditions, later to be specified, this type of reaction is the essential characteristic of the psychoneurotic make-up.

In the first place, the redintegrative mechanism may be seen in operation in countless places where it is not considered psychopathic. Untutored minds are especially likely to display the redintegrative type of thinking. Primitive magic seems to be largely based on the supposition that a part of an object or situation is potent to produce effects identical with those that follow on the presence of the complete stimulus. Darkness, wind, cold, lightning and thunder constitute the antecedent setting to a gratifying rain. Hence it is believed that simply reproducing one element of the antecedent (as a roaring noise) will result in rainfall and its harvest-making consequences. The footprint of the enemy, the sight of his weapon, the sound of his voice, are feared in much the same degree as is his actual attack. A very great part of the reactions and beliefs of primitive men is made up of just such conduct—acts which, if they should be exhibited by a man in modern life, would be considered psychoneurotic.

The essential feature of such conduct in primitive magic consists in the fact that a part of the stimulus arouses the complete reaction which has previously occurred or should "properly" occur, only in the presence of the entire situation. The appropriateness of such conduct obviously depends on the relevance of the part-stimulus. If the detail that occurs is what we commonly call a *significant* part, the response is a useful perceptual reaction. The more irrelevant the detail responded to the more lacking in sagacity, and hence the more psychoneurotic is the individual to be considered.

The various forms of fetishism, whether of the primitive sort or of the more modern forms found in the perverted instincts of sex, property, fear, etc., represent similarly

a complex emotional response, properly aroused only by a correspondingly complex stimulus or situation. In the taboos and magic of primitive fetishism and in the reactions of the modern pervert these total responses are provoked by the occurrence of some very partial or remotely associated detail.

A drop of a comrade's blood, the crudely drawn profile of the enemy's features, the weapon or tooth or wedding ring of an ancestor stir the primitive and redintegrative consciousness with elaborate emotional patterns entirely disproportionate to the fragmentary stimulus determining them. In parts of Oceania and Africa the personality of a new chieftain and his vigorous methods of enforcing discipline are so fearfully impressed on the consciousness of his subjects that even the sound of his name provokes a total redintegrated reaction. Individuals bearing the same name immediately adopt a new one so as to avoid encountering the dreadful sound. The name is never pronounced. Any animal, plant, physical object or implement known by this name or by a name resembling and hence suggesting it becomes at once an object of taboo. Rationalized explanations of such phenomena are entirely unnecessary so long as the redintegrative concept suffices to make them intelligible.

Totemic man drank the blood of the fierce who were slain in battle, in order to appropriate their power. No doubt this redintegrative magic tended to arouse just such added courage as was more ordinarily aroused by the actual example of the individual warrior in action. More modern neurotics are similarly stimulated through the emotional reactions and the adrenal adjustments and compensations occasioned by the voice of a bishop, the bone of a saint, a phial of water from the Jordan, or the touch of a handkerchief mailed by the secretary of some secular healer who has been given newspaper notoriety.

The scalp of an enemy, the antlers or pelt of a hunted animal, the statue of a hero, a brass button from a famous battlefield, a national hymn, a red flag, all possess their special virtue through the mechanism of the redintegrative reaction. Perhaps the kiss, the embrace and other varieties

of caress, as well as the more servile forms of homage and respectful salutation derive their potency in a similar fashion, through redintegrated emotions ordinarily accompanying more fully executed attitudes.

The members of primitive Australian clans, with plant totems, threw portions of the plants into the air as a magic ceremonial in order to bring about an increased supply of these grasses. Because of the nature of plant propagation, of which the actors seem to have been ignorant, this method was actually attended by success, and the magical ceremony thus anticipated the more scientific procedures of sowing and tilling. But, reacting only to an outstanding and irrelevant detail, the Australians also sought to increase the supply of animals of the lizard totem by scattering about bits of sacrificial lizard, or even, in still more redintegrative fashion, by molding a heap of sand into the form and shape of a large lizard, then throwing this sand into the air. Thus the spatial relations, the simple perceptual details of form and shape, supplant the actual totem animal, even as the act of tossing into the air, again a simple perceptual detail, represents the whole process of increasing the crop.

Water removes physical filth. So also, for primitive minds, does it wash away the contamination and guilt of violated taboos. The washing is not symbolic, for primitive minds seem not to have recognized symbols of this degree of abstraction. The cleansing was actual, that is, magical So also in a later ritualistic development do ablution, immersion and sprinkling remove the impurity of the soul and the consequences of original sin. Even in our modern christening ceremonials a dash of water or other fluid constitutes a vague antidote against future as well as past transgression, physical danger and accident, and in the case of physical objects, such as boats and buildings, it guards against the possibility of structural imperfections. Throughout this development, including even the most sophisticated symbolic performances of the ritual, the logic is that of redintegration. Reaction to an elementary property of water determines a complex emotional response of the magical variety. . . .

Infantile learning and childish thinking readily follow the redintegrative pattern. Every man with whiskers is called "papa," and any hairy quadruped, or even a muff or fur coat, is "kitty" to the child. Here the reaction is vocal or perceptual merely, or it may often be observed to take the form of overt conduct, but it shows the same characteristic mechanism as that observed in primitive magic—the complete reaction to a part, and often to a very insignificant part, of the original stimulus.

Dream experiences, again, afford many instances of this redintegrative mechanism. Some fragment of a stimulus is elaborated into a comprehensive event by calling up a complete interpretative pattern. The clang of a bell arouses the whole train of excitement normally attending a conflagration; the rush of water heard through the porthole is transformed into an elaborate oratorical effort. Thus the hypnagogic illusions and the presentative dreams display at the same time the redintegrative mechanism of infancy and primitive magic and the naïveté of the psychoneurotic symptom.

Two typical hypnagogic records will serve to illustrate the importance of the redintegrative pattern in dream formation. At Victor Herbert's opening concert in 1909, L———, E——— and myself were talking of the cartoons of Mr. Bug in *Life*. L——— described a cartoon in which the six legs of Deacon Firefly were represented as grasping different objects such as a Bible, a prayer book, etc., while Mr. Bug held playing cards, a bottle, a cigar, etc. I had been working all day on comparative nervous anatomy, preparing a lecture on complications of stimulus and response, and had my head full of segments and nervous arcs. The orchestra played Grieg's "Wedding Day at Hegstad." In the last bar there were three finishing blasts with full orchestra. I had become very drowsy, and these blasts seemed to me to be the movements of some huge bug, which came sailing from behind the wings, suddenly alighting on the stage, first on the two hind feet, then bringing down the middle pair, and finally the two front feet, with the final blast. The visual elements present were of huge, vague, rather reddish brown jointed legs, the feet not

clear, and only the lower ventral side of the body dimly suggested, but flashing out of each "land" of the feet. Here it seems obvious that a faintly perseverating cortical pattern was vigorously aroused by rather trivial relational elements in the stimulus, the resulting fusion constituting the dream experience.

Observer L——— had a severe toothache during a given day, and though very sleepy and worn out could not sink into a sound slumber because of the pain. For several hours she lay in a state of semi-consciousness, tossing from side to side in a drowsy effort to find a comfortable position. All day she had been intently working on a coat which she was making, and her tossings back and forth were all in terms of the seams on the coat—that is, as she turned to the right the seam down the right side of the garment was inspected, then as that position gradually grew unbearable the seam began to wrinkle, to pucker, and to become quite unmanageable. Thereupon she decided to work a while on the other seam (turned to the left side) and carefully basted and pressed the seam on the left side of the coat. But, although it behaved satisfactorily for a time, it too soon began to wrinkle and the thread to snarl. In despair she attacked the seam on the right side again; that is, she turned over in bed to the right side once more. This continued for an indefinite time. She was in despair and feared the garment would be quite ruined. All through these hours she was conscious of the slight and occasional flapping of the window blind and twice she replied quite sensibly to the questions of her companion, and noted the striking of the hours on a clock in a neighboring apartment. But the illusion that she was wrestling with the seams of a refractory garment was not dispelled until she fell asleep at daylight. Here again it is clear that the kinæsthetic and static stimuli kept active a cortical pattern that was already in a state of perseverative preparedness. The dream experience consisted only of the arousal of this redintegrative pattern by the current sensory impressions.

In ordinary conditions of exhaustion, fatigue, drowsiness, and delirium the redintegrative mechanism is conspicuous. Thus in one case observed, the subject had been

steadily putting others through a series of exacting mental measurements. Day after day, and as often as 500 times a day, this subject had said to the person just about to begin to work at a mental test, "Ready, go!" At the end of a long day's work of this type the telephone bell rang and the subject answered the call. Taking down the receiver she leaned toward the mouthpiece and said, in the customary brisk but now somewhat automatic manner, "Ready, go!" Here it was clear that the reaction was only to a portion of the situation. The feel of the instrument in the hand, the sight of the wall box, the standing attitude, and the recent intention to "go to the telephone" had no part in determining the response. The simple relational feature of the situation, "being ready to have another person begin something" brought out the older reaction to this situation as it occurred in another setting, rather than the conventional telephone salutation. By a quite similar mechanism the over-worked college instructor was actuated to request the street-car conductor to let her off "at page thirty-four."

Most of the devices of patriotism, the ceremonials of religious devotion, and many types of æsthetic response depend for their efficacy on the redintegrative process. The thrill of piety comes to be aroused by trivial details of the original setting—the hymn, the cross, the candlestick, the incense. Patriotic fervor originating in a complex situation of national danger is thereafter stirred by the drum, the flag, the bugle call, the martial air. . . .

Similarly the occurrence of a single detail, such as the scent of flowers, the noise of rain drops, the smell of peanuts, may revive *in toto* the emotional reaction previously associated with a much more complex situation. This is indeed the psychology of the "souvenir." Because of this redintegrative mechanism Napoleon's old shoes acquire merit and the bone of a saint comes to possess special virtue. Fetishism, whether of the religious, artistic, erotic or nationalistic form, is based on the possibility of this type of "transfer." But the inaptness of the term *transfer,* more commonly used to describe this type of conduct, is apparent from the fact that no transfer of any kind has taken place. Even in the most symbolic of instances the reaction is to

some detail of the previous total situation, now encountered perhaps, but by no means necessarily, in a new setting. Most animal training proceeds in just this fashion, by inducing the animal to make the total reaction when only some minor detail of the original situation is present, some word, gesture, or other cue. The scarecrow is a typical example.

It is important to note that the detail or fragment, which touches off the redintegrative reaction, need not take the more or less substantial form of a sensation, a sensory quality, nor need it be so objective a factor as an object, person or thing. Relational elements, details or analogies of form, structure and pattern, such as those that underlie the metaphor, the simile, the rhythm and the melody, are just as effective as are the most sensory qualities.

In language, indeed, we have this type of redintegrative mechanism at its height of development. We come to react to words just as we have previously reacted to the total situations with which the words have been associated as partial details. This is why the poet, the orator, the novelist, can move us to action and to emotion. The writer well recalls the throbs produced in a newly vaccinated arm by Gunsaulus' lecture on Savonarola. The mere words produced the same vaso-motor reactions that might have resulted from witnessing the deeds themselves. This is just why words, verbal instructions, can so potently set up determining tendencies in the nervous system—they induce the response and the cortical sets that would otherwise be produced by the objects or circumstances themselves.

This is in fact the conditioned reaction in one of its earliest forms. The fact that words can induce not only reactions of the striated muscle, in the form of voluntary conduct, but can also provoke striking reflex, vaso-motor, and secretory changes similar to those produced by the original stimuli which the words denote, was known ages before Pawlow measured this tendency in the case of the digestive juices. The facts of the "conditioned reflex" are well known to every boy who owns a dog, as they were to the first savage who ever domesticated a beast of burden, or

to the first man who employed gesture as a mode of communication.

There is indeed a sense in which this redintegrative mechanism is representative of the most characteristic acts of perception and association. In space perception, in reading, in the recognition of familiar objects, in association by contiguity and similarity, in ordinary illusions, in many forms of æsthetic enjoyment, the essential mechanism is the redintegration of a previous total reaction by a present partial stimulus. In this field illusion is distinguished from correct perception only by the appropriateness or relevance of the stimulating detail. This is the same type of distinction as that which we shall find necessary to make between psychoneurotic and healthy conduct.

Two things now remain to be done before this exposition of redintegration is complete. It must first be shown that the clinical symptoms of the psychoneurotic conform to this redintegrative pattern. It must then be shown how these tendencies in the psychoneurotic differ from the many similar redintegrative reactions which we have just described as normal, not pathological.

Observation of the psychoneuroses of soldiers in time of war exhibits in most striking fashion the operation of the redintegrative mechanism. In the trenches or in some other form of active engagement or service the soldier is overcome by anxiety, terror, rage, or deep depression. He collapses and is removed to the field hospital, to the base hospital, and, as he gradually recovers, to some convalescent camp farther removed from the scene of conflict. His breakdown may have been characterized by one or more of a great variety of symptoms—general somatic distress, weakness, nausea and vomiting, paralysis, deafness, tremor, tic or spasm, stuttering, convulsive attack, fainting spell, contracture, visual defect, headache. Or perhaps his picture takes a more psychic form, in states of worry, hypochondria, insomnia, timidity, nightmare, doubt, suspicion, anxiety.

Whatever the symptom, the first important thing is that it came as a reaction to a very complex situation, involving

many or all of such varied details as weapons, orders, officers, drills, uniforms, shouts, explosions, combat, physical violence, ghastly sights and sounds, sudden and terrific noises, flashes of flame, disagreeable duties, responsible details, exposure, burdensome work, regimental discipline, distasteful food, restriction of liberty, absence from home, etc.

The next observation of importance is that he commonly recovers from the acute symptoms when removed from the stimulating environment. Release from service, being ordered to his home camp, being sent to non-combatant service, being assured that he will not be returned to the front, being granted a long furlough, or being informed that peace has been declared or an armistice signed, mean, with surprising certainty, relief from the acute symptoms.

The third observation which is of special relevance from our point of view is that, pending such relief, or for some time afterward, the occurrence of a single detail of the original complex experience is sufficient to induce the complete symptom reaction again. The sudden discharge of the fire alarm at the convalescent hospital throws the recovered inmates back into their former tremors, agitations, aphonias, stammering, convulsions and nightmares. The unexpected popping of an automobile engine was observed to have a similar disastrous effect. Such men cannot carry on the drill exercises prescribed for them in many convalescent hospitals, since the "drill situation" itself is adequate to bring back their former symptoms. A sudden shout, a slap on the back, a parade, the excitement of a dog fight, a boxing match, the sight of a flesh wound, the call to an examination, being given a mental test, appearance before a board of medical officers, a typhoid inoculation, assignment to guard or police duty, or even the appearance, in the ward, of a medical officer in uniform, constitute exciting causes of a return of the old-time tremor, stammer, paralysis, headache, nausea or fainting spell. . . .

DeFursac describes this mechanism as characteristic of the psychoneurotic soldier, although he is far from realizing the far-reaching significance of his own remarks, when he writes:

But it is mainly the recollection of impressions related to the war that has the particular potency of exciting emotional crises. A shot fired in the distance, the sight of an airplane, a simple conversation about the war, suffice to let loose manifestations of anxiety. One of my patients said: "You must speak to my face, otherwise it frightens me."—Another, upon hearing several cannon shots, though fired at a great distance, was seized with such trembling that he had to be put to bed.—A morbid imagination stirs up, amplifies immeasurably and converts into obsession tragic spectacles of the war, causes him to live over again the fears once experienced, and projects into the future the terrors of the past.—The subject sees himself on the way back to the trenches and owing to an emotional and imaginative erethism, this perspective revives the elements of the shell shock syndrome. (DeFursac, "Traumatic and Emotional Psychoses," *American Journal of Insanity,* July, 1918.)

The mechanism here is especially clear, and it is entirely inadequate to characterize these cases as malingerers or simulators. If the redintegrative mechanism is relied on to make men thrill at the drum beat, the bugle call and the sight of the flag, it should certainly be recognized as adequate also to make them tremble at the sound of cannon, go speechless again at the prospect of bayonet practice, and nauseated again at the sight of a surgeon's knife.

In civil life the common psychoneurotic pictures are equally amenable to description under the terms of the redintegrative mechanism. Thus an adult patient is described as having attended the opera on one occasion after a bilious attack. "On looking over the balcony he became so dizzy that he presently had to leave. The week after, this time not bilious, he attended the opera again, and, looking over the balcony suddenly became dizzy again, and felt so uncomfortable that he could not sit through the performance. This state of affairs became so permanent that he finally had to give up the very desirable seat in the balcony" (Haberman, "Probing the Mind," Med. Rec., Dec. 1, 1917). The case is adequately described by saying that the single detail (sitting in the balcony) reinstated the total reaction that had previously been made to the more complex situation of being bilious, upset, sitting in the

front seat at the opera, in the balcony, and peering over the railing. In a still more exaggerated form simply "going to the opera" or "hearing an opera air on the phonograph" might reinstate the same complete symptom picture.

Another case is described by Haberman as follows: "A neurotic patient was brought to me because of persistent vomiting spells, at first but occasional, later very frequent. She had been 'pumped,' lavaged, dieted, physicked, and treated with innumerable drugs. Nothing had helped. My analysis brought out the fact that the parents of the girl had wished her to marry a certain man who was physically offensive to her. The girl objected and the parents persisted. There were arguments, quarrels, scenes. The man was disgusting to her. One night he called and the girl felt nauseated. After he left she vomited. Expecting him the following evening, she vomited before he came. Thereafter she had vomiting spells every time the man was expected or called. Even thinking about him brought on the attacks."

Here the psychoanalyst imbued with any of the concepts of symbolism, transfer of libido, siphoning of affect, or infantile regression, would find rich material for the elaboration of metaphors and similes. Haberman's own account is much more straightforward and cogent. "A psychoreflex had been established through the vegetative nervous system with the stomach, and every mental association linking in this man brought on an upheaval" (Med. Rec., Dec. 1, 1917). But the redintegrative mechanism still more aptly sums up the picture. The vomiting reaction had previously followed upon a very complex stimulus—quarrelsome session with parents, conflicting emotions, the sight of the man, his loathsome physical characteristics, resistance to his approaches, etc. Thereafter the mere thought of the man, the expectation of a visit from him, even his name, sufficed to bring on the complex vomiting reaction. The partial stimulus redintegrated the total response.

Another case, otherwise normal, confesses to a strong aversion to ice-cream, which was formerly enjoyed. The aversion dates from a remembered occasion when the presence of a hair in a dish of ice-cream, discovered too late

for avoidance, brought about an embarrassing situation and a violent organic revulsion. This organic revulsion, in the attenuated form of a positive aversion, is now reinstated by a minor part of the original stimulus—the sight or taste of ice-cream.

A case described by Prince and cited by Wells (*Mental Adjustments,* page 128) had a phobia for towers and church steeples, especially those in which bells might ring.

> No associations to explain the anomalous emotion were present to ordinary awareness. Memories elicited under hypnotic conditions threw no light on its origin. It was finally determined through the medium of automatic writing. While the patient was under hypnosis, narrating some irrelevant memories of her mother, her hand, into which a pencil had been put, wrote rapidly: "G—— M—— church and my father, took my mother to Bi—— where she died, and we went to Br—— and they cut my mother. I prayed and cried all the time that she would live, and the church bells were always ringing and I hated them." She wept while writing, but did not know why, nor what her hand had written. After coming out of the hypnosis, the patient was questioned as to the events referred to in the writing. A clear account of them was given, not accompanied by emotion, nor in the childish phraseology of the writing. Her mother, who was seriously ill, was taken to a great surgeon to be operated upon. . . . The chimes in the tower of the church, which was close to the hotel, sounded every quarter hour; they got on her (the daughter's) nerves; she hated them; she could not bear to hear them; and while she was praying they added to her anguish. Ever since this time the ringing of bells has continued to cause a feeling of anguish.

No clearer illustration of the redintegrative mechanism could have been devised. Here the original total response, an emotional condition, is totally reinstated by the recurrence of a very fragmentary detail of the original stimulus —the sight of a church steeple or the sound of a bell— these being the only portions of the original setting that were at all likely to be encountered in the new environment.

Wells, under the heading of "affective symbolism," cites another case which is readily describable in terms of the

redintegrative process, without invoking so special a mechanism as the "siphoning of affects." This is "the case of a twelve-year-old girl, characterized by an excessive dislike for the ordinary housework she is called upon to perform. She does not mind setting the table, making beds, watering flowers, or running errands, so much as dusting, cleaning the bird cage, and the like; that is, especially things that have to do with housecleaning. The most distasteful thing for her is to 'cut off the stems of flowers because their sap tubes are plugged.' In the midst of the embarrassment ensuing upon this confession, the girl appreciates an analogy between these dislikes and her chronic constipation from the earliest childhood, resisting all medical treatment. The housecleaning served in its unpleasantness as the affective symbol of its bodily correlate" (*Mental Adjustments,* page 146).

The concepts of "affective symbolism" and "affective siphoning" with their indefinite implication of motivation, may have advantages in psychotherapy which justify their retention. But for purposes of insight and description the essential mechanism here exhibited is simply that of redintegration—a trivial relational identity in the two situations, housecleaning and constipation, is sufficient to reinstate the loathing that originally belonged to the much more complex situation constituted by her lifelong illness.

One more case of this general type may be given by way of further illustration, a case described by Dejerine and Gauckler (*Psychoneuroses and Psychotherapy,* page 4):

> A woman, fifty years of age, who has been a widow for several months. Her children live at some distance from her and are not of much comfort to her. Her whole life was wrapped up in her husband, now several months dead. She is extremely thin. She weighs 79 pounds instead of her normal weight which is in the neighborhood of 110 pounds. This loss of weight has been rapid. It has taken place in three months. She says she is actually incapable of eating. Her food sticks in her throat. She chews it indefinitely, and cannot get up courage to swallow it. An egg, two or three cups of milk, and a few mouthfuls of bread are her daily diet. It is the typical picture of *mental anorexia.* How did it start?

Here is a case which is purely emotional in its origin, and this is how it happened. The woman continued to occupy the apartment where she had lived with her husband. When she sat down to her meals his image would arise before her, as would be natural from the association of ideas, bringing a whole train of emotional sensations, constriction of the throat, a feeling of weight in the stomach, lack of appetite, etc. She would get up from the table without having really eaten anything. By degrees this restriction of diet which was purely emotional in its origin brought her to the condition of mental anorexia.

The assumption here made of the revival of the image through the mechanism of association is purely gratuitous. It is enough to recognize that here was a situation (sitting at the table) which had previously been part of a larger whole (the first occasion of trying to eat after her husband's death, with his empty place conspicuous, his body perhaps in an adjoining room, the odor of medicines, the darkened house, the presence of lamenting relatives, the business of the undertaker, the priest, the nurse, etc.). In this elaborate situation her pronounced emotional reaction prohibited eating, characterized as it was by "emotional sensations, constriction of the throat, feeling of weight in the stomach, lack of appetite, etc." Since then, a part of the original situation, namely, the act of sitting at the table to eat, reinstates the whole emotional situation. Any part of the original situation would probably be equally effective—but these other parts do not recur—the relatives have departed and seldom visit her, the body is gone, the undertaker never returns, the house is no longer darkened in daylight. It is entirely unnecessary to assume with Dejerine and Gauckler that the idea of the husband was present in imaginal form, or indeed in any conscious form whatever. What is present is a fragment of the stimulus, evoking the total reaction.

The picture of the neurotic pedant presented in Jensen's story, "Gradiva," is that of a man distressed by a proneness to redintegrative responses on the autonomic level. Numerous things, in themselves apparently unrelated and trivial details, provoke in him vague emotions of unrest and in-

terest, tinged with curiosity and desire. This is the whole of his neurosis, except for occasional periods of confusion and a dissociated make-up which occasionally leads to absent-minded acts and "wanderings."

The potent details are such things as the pose of a female figure in an antique bas-relief, the peculiar gait of an unrecognized woman on the street, the warbling of a canary in an open window of a house in the neighborhood, a pair of honeymoon travelers, the conversation of a loving couple, the mating activities of house flies, an asphodel cluster of white bell-flowers, etc.

All these details, it develops, may be related to an early girl playmate for whom he had developed an early fondness that had been interrupted by the zeal of his parents. These adults had insistently directed his boyish activities into archæology, in order that the father's fame as an antiquarian be preserved and perchance exalted.

Fortunately for the young man's domestic life, the girl in the case required no psychoanalytic instruction to enable her to see the obvious character of his symptoms. In a severe lecture, from which a pouring rain prevented his escape, she effected a complete cortical redintegration, reassociated these potent details into their original setting of which she was herself the center. "See, all that means only that you love me." And the "cure" was completed.

The author of the Introduction to Freud's *Delusion and Dream* is quite right when he says "it needed only the application of technical terms to make this romance . . . a pretty good key to the whole domain of psychoanalysis." We may add, moreover, that the mechanism of redintegrative response constitutes a satisfactory key, both to a knowledge of the mental make-up of the hero and to an understanding of the actual facts indicated by the "technical terms."

The importance of the redintegrative mechanism in hysteria is recognized, although inadequately developed, by Bleuler, who writes, "Some hysterical phenomena represent mere *association reflexes*. If tuberculin injections have been followed by fever, distilled water can have the same effect, providing the patient thinks it is tuberculin. Whoop-

ing cough paroxysms may attend all situations associated with coughing, long after recovery from the original illness. Such a permanent association may result from a single experience, as a result of a definite constellation. If a hysterical pain occurs when the patient is lying in the grass, it may be reproduced thereafter by the wet grass, without the repetition of the actual cause" (*Lehrbuch der Psychiatrie* [2d ed.], 1918, page 405). A similar mechanism is strongly suggested by the familiar symptoms occurring in hay fever and asthma, as for example a case in which a person subject to hay fever in the presence of roses, had a typical attack when confronted with a bouquet made of paper.

CASTING OUT A "STUTTERING DEVIL"[1]

BY DR. HERBERT AUSTIN AIKINS

Jake was fourteen; he was Jewish; he had a broad, friendly smile; and he was obviously intelligent. He had stood first in his class in the grades, and now he was in high school trying to win the same place there, while incidentally he peddled more evening papers than any other boy in the district. But he stuttered abominably; and so his teacher sent him to her friend the psychologist, from whose many pages of manuscript this tale is put together.

Stutterers are the victims of emotional habits, which can be corrected like any other habits if one can only trace them to their source and break them up from within. If a child has rushed through a dark lane, scared out of its wits, two things will happen in the future; he will shy away from the lane, especially in the dark; and if something starts him into it he will rush through it in the same headlong way as he did before. A horse would do the same. It is a simple matter of emotional habit which is at the root of all the phenomena that Freudians describe in terms of "unconscious ideas," "buried emotions" and "complexes." And the way to break up the habit is to gain the child's confidence and go through the lane a few times with him, encouraging him to stop and examine each spooky object, until nameless fear gives way to confident knowledge and the "place of dragons, where each one lay" has become such a familiar and commonplace lane that it is quite impossible to rush blindly through it again. This is breaking up the habit from within,—a very different matter from sitting somewhere in the light and telling the child that it is absurd to be afraid. He knows that already.

[1] Reprinted by courtesy of the author and the editor from the *Journal of Abnormal Psychology and Social Psychology,* vol. 18.

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Jake is seated in an easy chair and tells his story:

"I have got to swallow before I can talk. In a crowd I get kind of nervous and can't say the words, and sometimes, too, when I am alone with one person, but I am all right when I am at home like. It began when I was five and a half, about two or three months after I started school. I do not know exactly what happened. It must have been some excitement or something. All of a sudden one day in school the teacher was surprised to see me stammering. I can remember that day yet.

"About a year ago I found out that all I have to do is to swallow and then I'd start. When I was younger I used to go 'Hiss pfiff,' and then I'd start.[1] [For this and following note see end of article.] Some of the children used to laugh at me. I can't remember what the excitement was."

To help find the "excitement" the psychologist asked Jake to lie back comfortably in the easy chair, close his eyes, make no effort whatever to control his thoughts, but notice anything that happened to come into his mind. If something very terrible has happened to a person he tends to shy away from anything connected with it in his thinking no less than in his speech and conduct, and the habit of avoiding That Awful Thing is one of the many influences that determine the direction of his purposeful thinking. But if he can be made to relax enough, the habit of avoidance may disappear for the moment with the other directing forces, and the long-avoided Thing may come spontaneously, often in visions startlingly vivid. So Jake closed his eyes and relaxed. But he did not say what came to him until he was asked to; for in cases like this the patient is likely to get lost and absorbed in emotional fixation on the vision before him. So the reader can imagine the psychologist constantly prodding his victim to give utterance to his thoughts and feelings by such oft-repeated questions as "And now?", "Now, Jake?" "Jake, what is it?" in varying degrees of encouragement, indifference or insistence. Things do not run along as smoothly as they seem to in the story. "I was thinking of the first day in school that I

started stammering. I have been sorry for it ever since. I can see my teacher sitting by the desk with me there right near her. It was after school when she called me up and asked why I stammered. I had not done so the day before. I was kind of surprised myself. That is about all I saw. It got shut out of my mind then." Repressed memories have a curious way of coming back in vivid visions, and of vanishing again when the present world obtrudes too much. It is part of the clinician's task to help the sufferer to see the buried past in the light of the present (as one teaches the child to see his dark lane in its proper commonplace surroundings). But before the past can be understood it must be brought to light. So again Jake has to close his eyes and relax.

"After that I went home. My mother kind of upbraided me for starting to stammer. Then I went up to the attic. I had been trying (in the attic) to get over it, but I did not succeed very well and got discouraged. I did not try any more then when I was young. I believe that because my mother upbraided me I got worse. I got excited and nervous."

Eyes closed again. "It is a kind of a blank. The second part got mixed up with it." Again. "That night I went to bed kind of sore. I started to cry and kept on for an hour. At last I fell asleep. I was sore because that was the first day I stammered. I am getting kind of used to stammering. I have not thought of these events before."

Tries again. "Nothing, absolutely nothing. A kind of a blank." He gave a start—"Before I went to sleep my sister told me the story of Demosthenes and the pebbles, and the whole family was kind of excited and my eldest sister took me on her lap; and that night I found some pebbles in the yard and went up to the attic and tried to talk with the pebbles in my mouth. At first I nearly succeeded, but one of the pebbles nearly went down my throat, so I quit." (Jake tells this excitedly. Then he is told to close his eyes and relax again.)

"Nothing. Been trying to think of something." That is bad technique. So he is told to merely relax. Suddenly he opens his eyes and speaks:

"The next day I again stammered and my teacher held me after school and told me the same story as my sister. I told her a stone had nearly gone down my throat, and she said that was the only cure she knew. She gave my sister some books to read, but it did not help."—"They come kind of suddenly, these pictures of old scenes."—"Nothing."—"After I went home I tried some other things, but they were of no avail. After that I studied my lessons with the habit of stammering all through the grades."

"There's one other thing. When I was about nine I was playing with my father's revolver, and it had a bullet in it, and the bullet just missed my temple by three or four inches. There is a hole in the wall where it went. That made me kind of excited. After that my brother fell down from the porch, two or three stories high, and cut his head above the eye. After that my mother had an operation on her gallstones. That kind of excited the family. There were lots of troubles in our family when I was young."

Eyes closed; suddenly he speaks. "One Sunday I was out in the woods and was frightened by a snake. It chased me about half a mile. I was about ten. It was a rattlesnake too. It buzzed. We used to live in a country town in western Pennsylvania."—"It is all a blank. I can't think."—"Just a blank. My eyeballs move around when my mind is a blank." (This was true. It is easy to see eyeballs move beneath closed lids.)

Speaks suddenly. "When I was young I used to get in a lot of scraps with the boys. Three or four of us would go and get green apples; then they wouldn't divide, and we had a free-for-all scrap. The orchard was near the woods where I had the scare." (His eyes go.) "It's a blank." "When I was about five years old I was chased by a mad dog about two or three days before I started my stammering, and if it wasn't for my father I might have been bitten. He took a club and knocked it on the head. That stunned it. Then three or four more blows killed it. I believe that must have been one of the main causes (of the stuttering). I ran about as fast as my legs would carry me. I hadn't any place to run to, but it was right near the house. I did not have any chance to go up the stairs because the dog can run

faster. So I ran around the house for a while till my father saw the danger and saw the dog and hit it on the head." ("Were you yelling?" [2]) "I'll say I was! My father heard me. I was coming from a movie show. I was calling for my father and mother. No, I wasn't stuttering then. I did not tell my teacher about the dog. I did not think it would do any good. I dreamed about it for one or two nights after the event, then I forgot about it until now. I never tried to tell any one the story. I was kind of ashamed of my cowardice. I thought that if I'd tell it my companions would kind of taunt me for the act." The reader may notice how the mad dog incident, the original cause of the trouble, is, quite characteristically, the last "excitement" to be recalled, how Jake mixes past and present tenses in reporting his visions and things they suggest, and how successfully he had repressed this horrid memory.

He closes his eyes again. "Nothing. It is a kind of agitated blank. Every time it is a blank I am agitated and my eyeballs move. I don't believe I can remember anything more." ("What does this agitated blank feel like?") "I feel as though somebody must be hidden somewhere. I can't get at him. I don't know whether it is a person or an animal. It must be something." ("Do you feel as though you were alone or as though some one were with you?") "As though I were alone. Also that something is going to happen. Isn't that superstition?" "Nothing. My head gets kind of hot and I feel as if I was going to get a headache."

To help overcome the influence of ordinary present-day interests and make it easier for old, dissociated thoughts and feelings to return, the psychologist now holds a watch against Jake's ear and tells him to listen to the tick, but still continue to notice anything else that comes to mind.

"Half the time my mind is on the watch and half the time I remember the first day I stammered. I could hear the watch and yet actually see that first day. I could see myself standing before my teacher, and she was asking why I stammered. I said, 'I don't know why.' My mother had noticed it in the morning before I went to school. It was about breakfast time when I started to stammer. I could tell by my mother's face that she noticed it. It was

when I asked for a slice of bread, and I could notice her surprise when I stammered. I think that was the first time I had ever done it." ("What were you thinking of when you asked for the bread?") "I just asked for a slice of bread and she handed me the butter with it." Note how detailed this recollection is! That is typical.

"Just a blank." "I was feeling that some one was near that was going to do something. I could feel something in my mind that some one was near. I do not know if it was a person or a thing. It seemed over my right shoulder, in the back at my right ear, about where that corner of the wall is. I can't describe the thing exactly, but it looked to me of a greenish black, a greenish, grayish black, and it had horns. It had a human face though." ("Was it facing you?") "Yes. It looked as if it was coming towards me, and it had the wings of a bat. I can't say it was an angel." What Jake described was in fact a perfectly correct conventional devil. When he was asked if it was more like a devil, he replied, "Almost like him." "I am thinking that's a kind of superstition." "Unless he had larger eyes than a human person has, and he was looking at me as if he was going to catch me. He was after me. I don't know what you'll think of it, but that's the fact." "Just a blank. I am agitated again. There comes a feeling about something; I don't know what it is. No, I am not afraid. Only I'd like to meet that person face to face if he tries to haunt me like that. I'd like to see if I described him right." "I was grappling with that person and I was choking him. I had him down and I was choking him. I'd like to have killed him before you spoke." "He was trying to get his hands at my face. I had one of my feet on his arm, and his other hand was free and he was trying to get that hand at my face." "He's green now;—and just now he's red." "Just a blank. It seemed to me, although I did not see it, that he got free of my—got loose of my hold (much stuttering) and that he had a better chance at me than I had at him." ("Were you yelling?") "No. This was in a lonely place. It seemed to be a barren desert. It was dark, and there didn't seem to be any stars or anything that was dark [*sic*] or any trees. It was all a barren desert." "I was just on the

point of knocking him over again when you stopped me."

Jake is now told that he need not stop seeing things in order to tell about them. He proceeds:

"I have him down, and I had my revolver with me, and I have two of his hands with my one hand, while with my right hand I take out my revolver and shot him right through the heart; and I hope I'll conquer him yet." "I am thinking, it seems to me that this person is this stammering; that it is personified by this person." "Yes, I've got him killed."

That guess of Jake's about the stammering comes near the truth; he has fought the stammering as he fights the demon; the emotions fit. But we shall see that the devil is also the dog—he is mixed up with the pebble that Jake nearly swallowed—he is a boyhood companion—and he is any one that has ever had to be feared or fought in a blood-curdling tale Jake had known him of old, with all appropriate emotion; he had doubtless dreamed of him before he was chased by the dog; and a devil image could always come to fit a lingering fear or tension. For it must be remembered that in dreams and phantasies images are determined by feeling, and not vice versa. The emotions are there in their own right; for they have a way of lasting for hours in the background of consciousness and of recurring at slight provocation, and they easily become habitual; and the images they bring with them may become habitual also, like gestures or exclamations.

"Just nothing. The light shined right in my eyes. At first I was kind of in repose, then the light shined on my eyes and I had to open them." "In repose. Just a little before I opened my eyes I was kind of uneasy. I thought it might come back again, that it might come to life again whether I shot it or not. This must be magic. I was just wondering how to get rid of it."

The devil really kept coming back because the fear continued, and the magic was invoked by Jake to account for it. This is what Freud calls secondary elaboration.

("Did you ever see this face before?") "In my early age, every other day I had to fight with a boy of my size. One day he'd win, and another day I'd win. The face is

almost like this boy's, except that the boy didn't have horns. Do you think there is anything the matter with my head?" "I never thought of these things much until you just reminded me of them." "Absolutely nothing. My eyes just twinged naturally." "I thought that thing came back to life and haunted me again." "Who is that person? Or is it anything in my mind?" "Nobody knows exactly how scared I was of the dog. I actually saw it now. It was terrible, I should say." There is another fight. Jake shoots the devil from behind a tree, chokes him while the devil chokes back, and finally "got him for sure by crushing his head with a rock," then sees him lying still, says he is gone, and feels much relieved, "I am just kind of happy now, almost. He's one of three things, the stammering or the boy or the choking."

It should be stated that the summer before Jake's visit he had had an operation on his throat, presumably for adenoids or tonsils, or both. Perhaps they contributed to the perpetuation or revival of the sense of being choked.

SECOND INTERVIEW—MARCH 29

Jake reports that on the whole the stuttering is better, and recounts the events of the previous conference. "You told me to lie down and think. I got uneasy. I was chased by a mad dog and by a snake. I shot a pistol right close to my head. At times my mind was blank. My eyeballs moved and I was agitated. I had a feeling that some one was near. I described that person almost like a devil. I had a combat with him and knocked him unconscious twice, but then he got up again and the third time I knocked him for good." As to his sleep and dreams, "I am restless in my sleep. I knock the covers off the bed and in the morning the cushions are all knocked around, but I do not dream at all. I think there must be another devil or I wouldn't be restless. Somehow my mind is nuts. I have to use slang once in a while to express it."

Jake closes his eyes, the devil reappears, in spite of the fact that he had been so thoroughly killed, and the fight begins again. "Last week I was trying to get that out of my mind and couldn't."

As seen the next time, Jake's enemy "had horns, and, gee! he looked just like a devil. He started shooting at me and I hid behind the tree and started shooting at him." ("Did you hit him?") "I did not come to that yet. He wounded me right in the neck—in the throat. I'd like to get him, though! (No stammering.) I just bled to death there. He was afraid to come near me for fear I'd shoot him. I suppose he did not know I was dead there." ("What does it feel like to be dead?") "You just sleep forever, quietly and peacefully. If you are dead you can't worry."

Eyes closed again. "Nothing. Just a blank." "I was uneasy." "I was just kind of dreaming—idling away my time—about nothing. My mind strayed to an unknown corner of the world. I don't know where." (The closed eyes seem peaceful.)

"He must have got the magic juice and put it in my mouth. I drank it, and they took me to the dungeon down below and they tortured me like everything. They put chains on me and beat me with a whip and everything. That is about all." ("Did it hurt?") "It must have and they told me they were going to put me in the fire."

At this point something is said about the sign of the cross, but Jake thought that would not do, "because I am a Jew"; and as to imitating Luther and throwing a Bible (perhaps it was only an ink bottle) at the devil, that would not do, either. It would be "an insult to the Bible. We read the Bible." (Closing his eyes again, Jake goes on as though there had been no interruption.)

"They took those chains off me, and a week afterwards, almost to the exact minute, they threw me into that fire and the flames just consumed me. Gee whizz, I wonder what they will do next!" . . .

("What does it feel like to be consumed?") "It just consumed me right in a second. I couldn't get the feeling of it." "No, sir, I don't like trying this. I am telling you the truth!" Jake spies a hairpin and infers that a girl has been in the room, for he has been reading "Sherlock Holmes"; and then he talks for a while about college and other matters of general interest, until he is asked to close his eyes again. For a while he sees nothing, feels entirely com-

fortable and breathes heavily. He opens his eyes, which look sleepy, and says, with very little stuttering, "I was knocked around for a while. They opened the coffin." ("What then?") "I did not come to that yet." Then, stuttering very badly, he proceeded: "I lay quite still for a while in the coffin and they started hunting something right near my head, and they put the juice in again, and I came to life, and two of them held my hands and then told me to go out; and with one hand I just threw one of those imps into the fire, and the rest of them started fighting with me and I took up a couple of bricks and threw them at them, and before Satan could take out his revolver again I vanished. That was some fight with them. I don't know what this will lead to." ("What do you think about it all?") "I must be going crazy. To tell the truth I don't like to think about this."

When Jake is asked to explain where he got all these ideas he says his mother used to tell him all kinds of stories of things that used to happen in Russia. There were stories of ghosts and especially of things that happened in the night when she was going home and heard a noise and started running. Once in a while the stories were about the devil. "I heard these stories about the devil in the same place where I was chased by the dog," and the time for telling them was before he went to bed. He had read for himself "The Gold Bug" and "Captain Kidd" and others like them. And he must have read about the devil in the fairy book, which he could read good when he was six; his sister used to teach him at night. Thus the fears and fancies and dreams of a five- or six-year-old still haunt the boy of fourteen, though to be sure he has enriched it all with the fruits of his later reading.

Told to close his eyes once more and see the devil and ask him if he is real. He reports: "He said he is not real. He just wanted to haunt me so that I could stammer. I just told him what I thought of him—that he is a dog-gone coward. It was in hell that I talked with him. Nobody else was there, just him himself." Asked to see him again, Jake says: "He just shrinks. He seems to be getting smaller and smaller until there is hardly anything left of him. He

didn't say anything. He was just kind of shivering and just shrunk." Jake gives a low, happy whistle and reports that he feels better. As for the devil, he continued shrinking until he became the size of a small pebble, and then changed himself into a pebble, which Jake picked up and threw into the lake, where it lay peacefully at the bottom. "It must be my imagination, but this pebble must have some relation to the pebbles that I tried to, to—I almost swallowed that pebble."

But the devil is not yet disposed of, for the pebble transforms itself into a fish, and Jake does not tell the fish that it is not real "because it hasn't any ears." But he grabs it by the tail and throws it upon the land. And then it turns back into a pebble. But at last Jake smashes the pebble into bits with the butt of his gun, and feels better. It is clear that Jake is winning his fight, and though in some of his visions he is sometimes "scared a little" he also sometimes laughs. The demon is losing its terrors. After a while Jake is asked, "How old are you?" "Fourteen." "Are you sure you are not five?" "I guess I must be." "You know there isn't any devil?" "Yes." "Then why don't you tell that to the thing you see?" With the watch to his ear Jake closes his eyes and then reports: "I told him he was a sneaking coward; and the devil did not mind it at all. I told him something more, but that isn't fit to repeat."

To get the devil and the fights out of Jake's mind the important thing was to get him used to facing such fancies without fear. And to that end it seemed wise to let him keep on seeing his demon, with more and more accompanying sense of his real surroundings until the fear wore fully out and he got a proper perspective.

Before Jake goes away he is told to keep repeating "There is no devil; I just dreamed it. And I do not have to stutter." But he thinks he would feel safer if he could really smash up a pebble like the one in his visions. So a few days later he mails the psychologist a little paper of white powder: "Enclosed please find the pebble smashed up. I feel fine now." And of course the psychologist told all of his friends how he has cast out a devil. But he knew

he could not cure the stuttering until he had also cast out the fear of the dog.

THIRD INTERVIEW—APRIL 5

Jake reports that for the first four days of the past week he kept saying his piece and did not stutter; then he was so busy reading "Tom Sawyer" and other books from the library that he forgot to say it and the stuttering returned. In his dreams sometimes the devil came back to life, and Jake simply does not know what to believe about the existence of such a being. If there really is a devil "he would be tormenting me," and if there isn't Jake does not know how it is all explained. As to God, "Sure I believe in Him; I'm no atheist yet." And Jake believes also that God must be stronger than the devil. But he does not think that God knows about his troubles, and he does not know how to tell Him; for "we don't say our own prayers, we read them from the Bible," and there is no prayer about this in the Bible. But he is glad that the pulverized pebble is in good hands, "and I just hope you will put it into a safe where it will not get out. If I'd know for certain that he can't get away, I'd feel better. You are to write me if he ever gets out. I hope you don't lose him." Jake says he has dreamed twice that the devil came back to life again, and three or four times that he was smashed to pieces and couldn't. But he admits that he has never thought of saying how lucky he was to get away from that dog.

The dog, however, is what the psychologist is after. He thinks that its time has come, and he means to make Jake's terrifying experience with it a commonplace memory rather than an ever-present, though repressed, reality by forcing the boy to live through it and tell about it so often that it begins to bore him and "passes as a tale that is told." So Jake has to close his eyes and let himself see the dog chasing him; and he tells the story as he told it before, adding that his father told the mother "and she keeps telling me of—— I forget what she told me. I believe she caressed me, too. I didn't cry. I was too scared to cry. I just went to bed and kept thinking of the mad dog chasing me. And then afterwards (stuttering) I fell asleep

and I dreamed about the mad dog chasing me again. I don't remember any more. I always kept away from dogs from that period on. But I am not afraid of them now." In his next three attempts Jake sees "nothing—just a blank—a red blanket like over my eyes." Then he tells how he used to shiver every time he looked at the place where his father buried the dog. The next four attempts also yield nothing. He yawns and says, "I don't remember anything. I can't see a thing. I just let it come in easy and it don't come in. My mind is away at a distance thinking of nothing." The next time he sees himself looking at the dog's grave, feels uneasy, and stutters when he describes it. When Jake is now told that what he was really afraid of was not the devil but the dog, he replies, "Then there isn't any devil?" and then asks, "Oughtn't my father to have buried that out in some farther place where I couldn't see it?"

The next time Jake closes his eyes he is told to let himself feel trembly and he says, "The dog came out again and started chasing me. I hit him with a stone and he was killed. Hasn't this some relation to my fight with the devil? The dog and the devil must be one, because I had the same thing happen to me with both. I dreamed of the dog first—dreamed of him the same night after I was chased." ("If you were to say there was not any dog or was not any devil, which would you say?") "I'd say there wasn't any dog; because I actually saw him in his grave. If I could see the devil being laid down I'd feel certain that there wasn't any devil."

("What was it you saw over your shoulder the first time?") "I saw the devil." ("But I mean nine years ago.") "It must have been the dog. I believe the dog must have been personified by the devil." ("Suppose you had seen the dog instead of the devil the other day?") "I would be much more scared than if I saw the devil."

With the watch held against his ear Jake is to see the dog.

"I can see him running after me. I can see and feel his teeth. He's got his mouth open. I can just see him right there. (Much stuttering.) I don't like to see him. He is almost at me. I can see one thing and then another. Sometimes I see the dog chasing me, and then I can see myself

looking at the dog's grave. Then, while I was being chased by the dog I was bitten by him and then I got the rabies and was delirious for a while and just thought that I was in hell and the dog bit me again and I was burnt up, and all kinds of foolish stuff." (Eyes open.) "If I had the rabies I would die almost within a day. I don't see how that (stuff) could come. How can I get that feeling out?"

Next comes another vision in which the father rescues Jake and kills the dog, but it comes out of its grave and chases Jake again and he kills it himself with stones. Jake agrees that only part of this is real, part imaginary, but, nevertheless, after some conversation and one or two attempted visions in which he sees nothing but the red blanket he goes through it all again. Then he varies it to this: "He comes up again (stuttering), sneaking back of me, and he bites me and I get so sick I die. Then he comes up and kind of licks my cheek and I come into life again and I told him what I thought of him and he shrinks into a pebble. (Eyes open.) It is about the same thing with the pebble and the dog as it was with the pebble and the devil! And I just take that pebble and I crush it."

("How much of that is real?") "None of it."

("Where is that dog?") "He isn't any place. There is no dog now. It is all in the form of a crushed pebble."

("But, Jake, where is the dog?") "He's no place."

("Where is the real dog?") "The real dog is buried."

("How many dogs are there?") "There's none now. There is one all crushed up and the other one is buried."

("Is there any difference between these two dogs?") "No, sir."

("You keep talking as though that dog were real.") "I can't help it."

("But is it real?") "No. It was real when I was about five. There's one buried and one got crushed."

("Who saw the one that got crushed?") "I was the only one there. I crushed it."

("Was it a real dog?") "No."

("Then do you think you need to worry about it?") "I might and I might not."

("Is there any use in worrying about a dog that you

only imagined?") "No. But I don't seem to get that out."

The whole story of the fight with the dog and Jake's dreams afterwards is gone over again, and again he agrees that only about half the things he sees are true and half are imagination; and he is made to close his eyes again and again and again to see what comes and to distinguish between the true and the imaginary. After a number of visions and a good many times when the mind is blank but not uneasy, Jake is asked, "Where are your devils?" and he replies, "I don't know. They must have come out of my system. I am just about through with them. I just hear the watch." It will be remembered that Jake had been chased around the house by the mad dog, and in a vision not previously mentioned he had seen himself chased around in a ring by the devil. But with his fear diminishing the vision changes: "The dog is after the devil, and they are racing around in a ring, and the devil looks more scared than I was. No, it isn't real, and I wasn't scared when I saw it. I could just see myself laughing at them."

("Well, what do you think about it all?") Jake stutters dreadfully and replies, "It seems they are both fighting with each other, and I can't give my opinion because I don't exactly know." Another unexpected answer! ("Then which of them do you want to see win?") "Neither of them, because they are both enemies of mine. I know they are not real, and yet there is a feeling about me that they are." When Jake tries to tell them they are not real they vanish (as of course they should); "but they come up again and I told them they were just my dreams, and they crept close to each other and they shrunk into one small pebble and I crushed the pebble into little bits."

Looking again, Jake says, "A little before I crush them I hear a voice from the pebble itself saying that they won't bother me any more. Then I crush the pebble though just to make sure."

The rest of the session is spent in teaching Jake to face the bad dog scenes again and again, and not to shy away from them. He does not like looking at the pictures, and he would rather see the devil than the dog. "It is a lot easier and pleasanter."

APRIL 12

Jake reports that he is stuttering and swallowing less, does not dream of anything, and no longer knocks the cushions around in his sleep. He thinks he must be getting cured. The session is spent in going over the visions, and Jake says they are by no means as real as they were at first. Told to tell the dog that he is not real and he will not fight with him, at first he sees only a blank and feels at ease. At the next attempt Jake says, "He comes out again and I fight with him and I get him down and I just tell him he's a dream and if he comes up again I'll have to knock his head off. I knocked him into his grave again and put large stones over the grave." ("But, what's the use of knocking a dream into his grave?") "I was just thinking of that. It isn't any use." After a while the creature comes up once more from the grave, and Jake is not sure whether it is the dog or the devil. "It seems to be both."

Throughout the session there are a good many comfortable blanks, and sometimes Jake sees himself sleeping on a pleasant hilltop. His eyes, closed, never move as they did in the first interview. The last time that the dog comes up from his grave and Jake throws him back into his grave the beast looks "just like a shadow." After that, one of the stones that Jake has put on the grave moves slightly; but Jake puts on some more, tells the beast he's dead, and stands there peacefully by the grave. When the session is over he goes home with instructions to say, "There is no devil and the dog is dead. I do not have to stutter." And that is all that need be said about the dog and the devil. They soon ceased to function.

From this time on, Jake's problems take a different turn, and the next dozen interviews are concerned with very present matters. He is "sore" because he was sent on an errand and the man kept him late for his appointment, and when he is sore he stutters; for the long-established habit which began with one disagreeable emotion is now aroused by others also. There is a disturbing influence in the home that keeps the whole family tense, and it is arranged that his teacher shall see the mother and have it

removed. The news agent that supplies Jake's papers wants him to sell four hundred a day instead of three, "and that is impossible, and he threatens to discharge me. He is always grouchy and fault-finding. When he gets crazy he always punches me, and I'd like to hit him, but need the money, so I can't. And once in a while when I get stuck very badly he gives me a box on the ear." That again means nervousness and stuttering; and it is hard for Jake to keep from thinking of his troubles even when he is studying in school. So he is advised to complain at newspaper headquarters, and the bullying ceases. Then one of his teachers is overworking him, and another "has a spite on him" and gives him low marks when he is working hard to be valedictorian, and Jake has to be convinced that a lower place in his class with peace of mind is worth more than the first place without it. Moreover, he has a way of being startled into stuttering speechlessness and feeling like an idiot when some one comes upon him suddenly, especially a teacher; he doesn't know why teachers should affect him more than others, "only you feel kind of—I can't explain—in awe of them." So all this has to be dealt with, for stuttering is increased by the habit of embarrassment that it causes; and in a later interview Jake is fortunately able to report that his awe of teachers is disappearing. About this time also, Jake announces a new vocational ambition. He had meant to be an accountant because that does not demand speech; but now he would like to be an interpreter because it does.

So matters rested for the summer. When Jake returned according to appointment in September, he reported continued progress. He stuttered less, slept well, sold three hundred and fifty papers a day, and had cured himself of being startled by taking boxing lessons at the Y. M. C. A. ("And how about the dog?") For a moment Jake looked puzzled: "Oh, that is dead and gone and buried. I have a little fox terrier at home though." ("And the devil?") He laughs. "That's buried too. I never think of them and I don't have a fear of anything." But he stutters "most always when one of these special editions" of the paper comes out, and he wants to go down to the office and "crack them one"; for "if I plan to do some important

thing and the specials come out I do not get to do that important thing afterwards. I wouldn't have time. And when I've set my mind on doing that certain thing and something comes up to stop it, that's what gets me going." When a person has an obvious weakness (like Jake's stuttering) he is likely to strive desperately to compensate for it by some kind of conspicuous achievement; he gets fixed purposes that he follows desperately, and he cannot adjust himself flexibly to changing conditions that upset his program of self-vindication. So something had to be done to relieve the pressure that led to Jake's outbursts. In November he reported that he was "feeling fine," that he went "easy on everything," was always happy, and had purposely allowed his sale of papers to go down a little. Here the notes say, "If Jake becomes a self-possessed gentleman the stuttering would have been worth while."

In December Jake reports again that he is "feeling fine." The stuttering is "done and forgotten almost. I just don't think about it. I don't get excited. I take it easy. I'll remember that all right. And this last month my marks went away up high, though I was not working so hard as before. No, I wasn't kidding you about that devil. I saw it right there back of me, and those combats were real. In my mind they were."

More than two years later Jake reported again. There are no more dreams of dog or demon. "Once it was banished it was gone." As for the stuttering, "After our last talk I thought with myself: That thing is there, and it is up to me to get rid of it. So I just literally threw it away. Sometimes when I get excited or nervous I get blocked; but when I am calm I can actually rattle off words like a steam engine. Yes, you can put me in print if you wish to."

NOTES

1. Stutterers frequently learn to use a "starter" of some sort to work off their embarrassment.
2. The psychologist's questions are in parentheses.

THE UNCONSCIOUS[1]

BY DR. MORTON PRINCE

EVIDENCE FROM ABSTRACTION. One of the most striking of artificial memory performances is the recovery of the details of inconsequential experiences of everyday life by inducing simple states of *abstraction* in normal people. It is often astonishing to see with what detail these experiences are conserved. A person may remember any given experience in a general way, such as what he does during the course of the day, but the minute details of the day he ordinarily forgets. Now, if he allows himself to fall into a passive state of abstraction, simply concentrating his attention upon a particular past moment, and gives free rein to all the associative memories belonging to that moment that float into his mind, at the same time taking care to forego all critical reflection upon them, it will be found that the number of details that will be recalled will be enormously greater than can be recovered by voluntary memory. Memories of the details of each successive moment follow one another in continuous succession. This method requires some art and practice to be successfully carried out. In the state of abstraction attention to the environment must be completely excluded and concentrated upon the past moments which it is desired to recall. For instance, a young woman, a university student, had lost some money several days before the experiment and desired to learn what had become of it. She remembered, in a general way, that she had gone to the bank that day, had cashed some checks, made some purchases in the shops of the town, returned to the university, attended lectures, etc., and later had missed the money from her purse. Her memory was about as extensive as that of the ordinary person would be for similar events after the lapse of several days. I put her into a state of abstraction and evoked her memories in the

[1] Reprinted from *The Unconscious,* by courtesy of the author and the publishers, The Macmillan Company.

way I have just described. The minuteness and vividness with which the details of each successive act in the day's experiences were recovered were remarkable, and, to the subject, quite astonishing. *As the memories arose she recognized them as being accurate, for she then remembered the events as having occurred,* just as one remembers any occurrence.[2] In abstraction, she remembered with great vividness every detail at the bank-teller's window, where she placed her gloves, purse, and umbrella, the checks, the money, etc.; then there came memories of seating herself at a table in the bank, of placing her umbrella here, her purse there, etc.; of writing a letter, and doing other things; of absent-mindedly forgetting her gloves and leaving them at the table;[3] of going to a certain shop where, after looking at various articles and thinking certain thoughts and making certain remarks, she finally made certain purchases, giving a certain piece of money and receiving the change in coin of certain denominations; of seeing in her purse the exact denominations of the coins (ten- and five-dollar gold pieces and the pieces of subsidiary coinage) which remained; then of going to another shop and similar experiences. Then of numerous details which she had forgotten; of other later incidents, including lectures, exercising in the gymnasium, etc. Through it all ran the successive fortunes of her purse until the moment came when, looking into it, she found one of the five-dollar gold pieces gone. It became pretty clear that the piece had disappeared at a moment when the purse was out of her possession, a fact which she had not previously remembered but had believed the contrary. The hundred and one previously forgotten details which surged into her mind as vivid conscious recollections would take too long to narrate.

(I have made quite a number of experiments of this kind

[2] It would have required a stenographer, whom I did not have, to record fully all these recovered memories. They would fill several printed pages, and I can give only a general résumé of them. Some weeks later the experiment was repeated and a record taken as fully as possible in long hand.

[3] Later in the day she discovered the loss of her gloves and, not remembering where she had left them, was obliged to retrace her steps in search of them.

with similar results. That the memories are not fabrications is shown by the fact that, as they arise, they become recollections in the sense that the subject can then consciously recall the events and place them in time and space as one does in ordinary memory, and particularly by the fact that many of them are often capable of confirmation.

I would here point out that the recovery of forgotten experiences by the method of *abstraction* differs in one important psychological respect from their recovery by *automatic writing*. In the former case the recalled experiences being brought back by associative memories enter into the associations and become true conscious recollections, like any other recollections, while in automatic writing the memories are reproduced in script without entering the personal consciousness at all and while the subject is still in ignorance. . . .)

Among the conserved forgotten experiences are often to be found fleeting thoughts, ideas, and perceptions, so insignificant and trifling that it would not be expected that they would be remembered. Some of them may have entered only the margin or fringe of the content of consciousness, and, therefore, the subject was only dimly aware of them. Some may have been so far outside the focus of awareness that there was no awareness of them at all, *i.e.*, they were subconscious. Instructive examples of such conserved experiences may be found in persons who suffer from attacks of phobia, *i.e.*, obsessions. The experiences to which I refer occur immediately before and during the attacks. After the attack the ideas of these periods are usually largely or wholly forgotten, particularly the ideas which were in the fringe of consciousness and the idea which, according to my observation, was the exciting cause of the attack. By the method of abstraction I have been able to recover the content of consciousness during the periods in question, including the fringe of consciousness, and thus discover the nature of the fear of which the patient was unaware because the idea was in the fringe.

Mrs. C. D., whom I have mentioned as having suffered intensely from attacks of fear, and Miss F. E., who is similarly afflicted with such attacks accompanied by the feel-

ing of unreality, are instances in point. As is well known, such attacks come on suddenly in the midst of mental tranquillity, often without apparent cause so far as the patient can discover. While in the state of abstraction the thoughts, perceptions, and acts of the period just preceding and during the attack, as they successively occurred, could be evoked in these subjects in great detail and with striking vividness. The recovery of these memories has been always a surprise to the patient who, a moment before, had been utterly unable to recall them, and had declared the attack had developed without cause. In the case of Mrs. C. D. it was discovered in this way the real fear was of fainting and death, and in that of Miss F. E. of insanity. These ideas having been in the fringe of consciousness, or background of the mind, the subjects were at the time scarcely aware of them and, therefore, were ignorant of the true nature of their phobias, notwithstanding the overwhelming intensity of the attacks. Among the memories recovered in these and other cases I have always been able to find one of a thought or of a sensory stimulus from the environment which immediately preceded and which through association occasioned the attack. When this particular memory was recovered, the patient, who had declared that the attack had developed without cause, at once recognized the original idea which was the cause of the attack, just as one recognizes the idea which causes one to blush. The idea sometimes has been a thought suggested by a casual and apparently insignificant word in a sentence occurring in a conversation on indifferent matters, or by a dimly conscious perception of the environment, sometimes an idea occurring as a secondary train of thought perhaps bearing upon some future course of action, and so on.

As instances of such dimly-conscious perceptions of the environment which I have found I may mention a gateway through which the subject was passing, or a bridge about to be crossed; these particular points in the environment being places where previous attacks had occurred. The perceptions which precipitated the attack may have been entirely subconscious and yet may be brought back to memory. . . .

Evidence Furnished by the Method of Hypnosis. It is almost common knowledge that when a person is hypnotized—whether lightly or deeply—he may be able to remember once well-known events of his conscious life which he has totally forgotten in the full waking state. It is not so generally known that he may also be able to recall conscious events of which he was never consciously aware, that is to say, experiences which were entirely subconscious. The same is true, of course, of forgotten experiences which originally had entered only the margin of the content of consciousness and of which he was dimly aware. Among the experiences thus recalled may be perceptions of minute details of the environment which escape the attentive notice of the individual, or they may be thoughts which were in the background of the mind and, therefore, never in the full light of attention. You must not fall into the common error of believing every hypnotized person can do this, or that any person can do it in any state of hypnosis. There are various "degrees" or states of hypnosis representing different conditions of dissociation and synthesis. One person may successively be put into several different states; many persons can be put into only one, but the degree of dissociation and capacity for synthesis in each state and in every person varies very much, and, indeed, according to the technical devices employed. Each state is apt to exhibit different systems of memories, that is, to synthesize (recall) past conserved experiences in a different degree. . . .

There is a class of hypnotic memory phenomena which acquire additional importance because of the bearing they have upon the *psycho-genesis* of certain pathological conditions. They show the conservation of the details of an episode in their original chronological order with an exactness that is beyond the powers of voluntary memory to reproduce. These phenomena consist of the *realistic reproduction* of certain emotional episodes which as a whole may or may not be forgotten. The reproduction is realistic in the sense that the episodes are acted over again by the individual as if once more he were actually experiencing them. Apparently every detail is reproduced, including the

emotion with its facial expressions and its other physiological manifestations, and pathological disturbances like pain, paralysis, anesthesia, movements, etc. I will cite the following three examples:

M——l, a Russian, living in this country, suffers from psycholeptic attacks dating from an episode which occurred seven years previously and *which he has completely forgotten.* At that time he was living in Russia. It happened that after returning from a ball he was sent back late at night by his employer, a woman, to look for a ring which she had lost in the ballroom. His way led over a lonely road by a graveyard. As he was passing this place he heard footsteps behind him and became frightened. Overcome with terror he fell, partially unconscious, and his whole right side became affected with spasms and paralysis. He was picked up in this condition and taken to a hospital. Each year since that time he has had recurring attacks of spasms and paralysis.[4]

In *hypnosis* he remembers and relates a dream. This dream is one which recurs periodically but is *forgotten after waking from sleep.* This is the dream: He is back in his native land; it is the night of the ball; he sees his employer with outstretched hand commanding him to go search for the ring. Once more he makes his way along the lonely road; he hears footsteps; he becomes frightened, falls, and then awakes, with entire oblivion for the dream, to find his right side paralyzed and in spasms.

The following experiment is now made. By suggestion in hypnosis he is made to believe that he is fifteen years of age. As a consequence in his hypnotic dream he is once more living in Russia before he had learned English. It is now found that he has spontaneously lost all knowledge of the English language and can speak only Russian. He is told it is the night of the ball, and, as in a dream he is carried successively through the different events of that night. Finally he returns in search of the ring, passes again over the lonely road, hears the footsteps and becomes frightened. At this point his face is suddenly contorted with an

[4] Sidis, Prince and Linenthal: A contribution to the Pathology of Hysteria, *Boston Medical and Surgical Journal,* June 23, 1904.

expression of fright, the whole right side becomes paralyzed and anesthetic, and the muscles of face, arm, and leg affected with clonic spasms. At the same time he moans with pain which he experiences in his side, which he hurt when he fell. Though consciousness is confused he answers questions and describes the pain which he feels. On being awakened all passes off.

Mrs. W. on her return to Boston after an absence in Europe happened to pass by a certain house on her way to her hotel; the house (a private hospital) was one with which she had very distressing associations. On leaving the steamer she took a street car which she left a block distant from the hotel. She walked this distance and as she passed the house she was seized with a sudden attack of fear, dizziness, palpitation, etc. Although it is beside the point I may say that she had not noticed the locality and did not consciously recognize the house until the attack developed. The attack was, therefore, induced by a subconscious perception.[5] She recalls the incident and describes the attack, remembers that it occurred at this particular spot, but without further detail.

Now in hypnosis she is taken back to the day of her arrival on the steamship. In imagination, as in a sort of dream, she is living over again that day; she disembarks from the ship, enters the street car in which she rides a certain distance; she leaves the car at the point nearest her destination and proceeds to walk the remainder of the distance; suddenly her face exhibits the liveliest emotion; she becomes strongly agitated and her respiration is short and quick; her head and eyes turn toward the left and upward, as if in search of a cause, and she exclaims, "Yes, that's it, that's it," as she recognizes in imagination the house which had been the scene of her previous distress. Then the attack subsides as she passes by, continuing her way toward her hotel.

Mrs. E. B. suffers from traumatic hysteria as the result of a slight but emotional accident—a fall—when alighting from a railway train. The accident resulted in a sprained

[5] The Dissociation of a Personality, by Morton Prince (New York; Longmans, Green & Co., 1906), p. 77.

shoulder and neuritis of the arm. She fully remembers the accident and describes it as any one might.

When put into hypnosis, however, the memory assumes a different character. She is taken back in imagination to the scene of the accident. Once more the train is entering the station; she leaves the car, steps from the platform upon a truck; then, unawares, steps off the truck and falls to the ground. As she falls her face suddenly becomes distorted with fear; tears stream down her cheeks, which become suffused; her heart palpitates; she suffers again acute pain in her arm, and so on. Her physical and mental anguish is painful to look upon. Though I try to persuade her that she is not hurt and that the accident is a delusion, my effort is not very successful.

In this experiment, as in the others, there is substantially a reproduction in all its details of the content of consciousness which obtained at the time of the accident, and also of the emotion and its physiological manifestations—all were faithfully conserved. Further, each event follows in the same chronological sequence as in the original experience.

But in these observations the reproduction differs somewhat from that of ordinary memory. It is in the form of a dream, hypnotic or normal, and the subject goes back to the time of the experience, which he thinks is the present, and actually lives over again the original episode. Unlike the conditions of ordinary memory the whole content of his consciousness is practically limited to that which originally was present, all else, the present and the intervening past, being dissociated and excluded. The original psychological processes and their psycho-physiological accompaniments (pain, paralysis, anesthesia, spasms, etc.) repeat themselves as if the present were the past. Plainly, for such a reproduction, the original episode must have left conserved dispositions of some kind which when excited were capable of reënacting the episode in all its psycho-physiological details. From a consideration of such phenomena it is easy to understand how certain psycho-neuroses may be properly regarded as memories of certain past experiences. The experiences are conserved and under certain conditions reproduced from time to time. . . .

Evidence from Hallucinatory Phenomena. I may mention one more example of conservation of a forgotten experience of everyday life as it is an example or mode of reproduction which differs in certain important respects both from that of ordinary memory and that observed under the artificial methods thus far described. This mode is that of a *visual* or an *auditory hallucination* which may be an exact reproduction in vividness and detail of the original experience. It is a type of a certain class of memory phenomena. One of my subjects, while in a condition of considerable stress of mind owing to the recurrence of the anniversary of her wedding-day, had a vision of her deceased husband, who addressed to her a certain consoling message. It afterwards transpired that this message was an actual reproduction of the words which a friend, in the course of a conversation some months previously, had quoted to her as the words of her own husband just before his death. In the vision the words were put into the mouth of another person, the subject's husband, and were actually heard as an hallucination. Under the peculiar circumstances of their occurrence, however, these words awakened no sense of familiarity; nor did she recognize the source of the words until the automatic writing, which I later obtained, described the circumstances and details of the original episode. Then the original experience came back vividly to memory. On the other hand, the "automatic writing" not only remembered the experience but recognized the connection between it and the hallucination. (The truth of the writing is corroborated by the written testimony of the other party to the conservation.)

Although such types of hallucinatory memories are not actual reproductions of an experience but rather translated representations, yet they show the experience must have been conserved in order to have determined the representation. The actual experience, as we shall see later, is translated into a visual or auditory form which pictures or verbally expresses it, as the case may be. This type of hallucination is common. That which is translated may be previous thoughts, or perceptions received through another sense. Thus Mrs. Holland records a visual hallucination

which pictured a verbal description previously narrated to her by a friend, but forgotten. The hallucination included "the figure of a very tall thin man, dressed in gray, standing with his back to the fire. He had a long face, I think a mustache—certainly no beard—and suggested young middle age." . . . On a second occasion "the tall figure in gray was lying on the bed in a very flung-down, slack-jointed attitude. The face was turned from me, the right arm hanging back across the body which lay on the left side. I started violently and my foot seemed to strike an empty bottle on the floor."

There is very little doubt that these visions of Mrs. Holland's represented Mr. Gurney, who had died from an accidental dose of chloroform. Mrs. Holland "took very little interest" in Mr. Gurney, hence she had entirely forgotten that the main facts of his death had been told to her a few months previously by the narrator, Miss Alice Johnson.[6]

In an hallucination of this sort we have a dramatic pictorial representation of previous though forgotten knowledge which must have determined it. In order to have determined the hallucination the knowledge must have been conserved somehow. I have frequently observed a similar reproduction of a forgotten experience, which was not visual, through translation into a newly created *visual* representation in the form of an artificial hallucination. The following is of this kind: Miss B., looking into a crystal,[7] saw a scene laid in a wood near a lake, etc. Several figures appeared in this scene, which was that of a murder. Al-

[6] *Proceedings of the S.P.R.,* June, 1908.

[7] Crystal or artificial visions are hallucinatory phenomena which, like automatic writing, can be cultivated by some people. The common technic is to have a person look into a crystal, at the same time concentrating the mind, or putting himself into a state of abstraction. Under these conditions, the subject sees a vision, *i.e.,* has a visual hallucination. The vision may be of some person or place, or may represent a scene which may be enacted. Because of the use of a crystal such hallucinations are called "crystal visions," but a crystal is not requisite; any reflecting surface may be sufficient, or even the concentration of the attention. The crystal or other object used of course acts only by aiding the concentration of attention and by force of suggestion.—The *subconscious* is tapped.

though she had no recollection of anything that could have given rise to the hallucination, investigation showed that the original experience was to be found in one of Marie Corelli's novels which she had read but forgotten. The vision was a correct representation of the scene as described in the book. . . .

Evidence Obtained from Dreams. Another not uncommon mode in which forgotten experiences are recovered is through dreams. The content of the dream may, as Freud has shown, be a cryptic and symbolical expression or representation of the experience, or a visualized representation or obvious symbolism, much as a painted picture may be a symbolized expression of an idea, or it may be a realistic reproduction in the sense that the subject lives over again tne actual experience. . . . One subject of mine frequently dreamed over again in very minute detail, after an interval of eight or nine months, the scenes attending the deathbed of a relative. Indeed, in the dream she realistically lived them again in a fashion similar to that of hypnotic dreams such as I have related. Although she had not forgotten these scenes it is highly improbable that she could have voluntarily recalled them, particularly after the lapse of so long a time, without the aid of the dream, so rich was it in detail, with each event in its chronological order.

Dream reproductions, whether in a symbolic form or not, are too common to need further statement. I would merely point out that the frequency with which childhood's experiences occur in dreams is further evidence of the conservation of these early experiences. The symbolic dream, cryptic or obvious, deserves, however, special consideration because of the data it offers to the problem of the nature of conservation which we shall later study. In this type of dream, if the fundamental principle of the theory of Freud is correct, the content is a symbolical continuation in some form of an antecedent thought (experience) of the dreamer.[8] When this thought, which may be forgotten, is

[8] According to Freud and his school it is always the imaginary fulfillment of a suppressed wish, almost always sexual. For our purposes it is not necessary to inquire into the correctness of this interpretation or the details of the Freudian theory.

recovered the symbolic character of the dream, in many cases, is recognized beyond reasonable doubt. . . . If the principle is sound, then it follows that symbolism includes memory of the original experience which must be conserved. So that even this type of dream offers evidence of conservation of experiences for which there may be total loss of memory (amnesia).

Before closing this lecture I will return to the point which I temporarily passed by, namely, the significance of the *difference in the form of reproduction* according as whether it is by automatic writing or through associative memories in abstraction. In the latter case, as we have seen, the memories are identical in form and principle with those of everyday life. They enter the personal consciousness and become conscious memories in the sense that the individual personally remembers the experience in question. Abstraction may be regarded simply as a favorable condition or moment when the subject remembers what he had at another previous moment forgotten. We have seen also that the same thing is true of remembering in hypnosis (excepting those special realistic reproductions when the subject enters a dreamlike or somnambulistic state and lives over again the past experience in question). In automatic writing, on the other hand, the reproduction is by a secondary process entirely separate and independent of the personal consciousness. In the examples I cited the latter was in entire ignorance of the reproduction which did not become a personally conscious memory. At the very same moment when the experiences could not be voluntarily remembered, and without a change in the moment's consciousness, something was tapped, as it were, and thereby they were graphically revealed without the knowledge of the subject, without memory of them being introduced into the personal consciousness, and even without the subject being able to remember the incident after reading the automatic script. Even this stimulus failed to bring back the desired phase of consciousness. It was very much like surreptitiously inserting your hand into the pocket of another and secretly withdrawing an object which he thinks he has lost. What really happened was this: a secondary process was awak-

ened and this process (of which the principal or personal consciousness was unaware) revealed the memory lost by the personal consciousness. At least this is the interpretation which is the one which all the phenomena of this kind pertaining to subconscious manifestations compel us to draw.[9] At any rate the automatic script showed that somehow and somewhere *outside the personal consciousness* the experiences were conserved and under certain conditions could be reproduced.

We now also see that the same principle of reproduction by a secondary process holds in hallucinatory phenomena whether artificial or spontaneous, and in many dreams. When a person looking into a crystal sees a scene which is a truthful pictorial representation of an actual past experience which he does not consciously remember, it follows that that visual hallucination must be induced and constructed by some secondary subconscious process outside of and independent of the processes involved in his personal consciousness. And, likewise, when a dream is a translation of a forgotten experience into symbolical terms it follows that there must be, underlying the dream consciousness, some subconscious process which continues and translates the original experience into and constructs the dream.

This being so we are forced to two conclusions: first, in all these types of phenomena the secondary process must in some way be closely related to the original experience in order to reproduce it; and, second, a mental experience must be conserved in some form which permits of a subconscious process reproducing the experience in one or other of the various forms in which memory appears.

[9] If the physiological interpretation be maintained, *i.e.*, that the script was produced by a pure physiological process, this phenomenon would be a crucial demonstration of the nature of conservation, that it is in the form of physical alterations in nervous structure. I do not believe, however, that this interpretation can be maintained.

AUTOMATIC WRITING AS AN INDICATOR OF THE FUNDAMENTAL FACTORS UNDERLYING THE PERSONALITY[1]

BY DR. ANITA M. MÜHL

. . . Automatic writing in its simplest form is script which the writer produces involuntarily, and in some instances without being aware that he is doing it, even though he be in an alert waking state. Automatic writers may be divided into two classes: those who can write only while being consciously distracted and stimulated, and those who can write only while relaxed and with the attention fixed. These two groups may be further subdivided into subjects who at the moment of writing have no idea what the hand is recording and those who at the moment have ideas corresponding to the ones recorded, but which seem to flood the mind without volition and without logical association toward the normal mental processes. The writing is the manifestation of dissociated ideas of which the writer is not aware. . . .*

Violet X——— was born in New England and lived a normal healthy life as a child. She had excellent schooling, graduating from a college for women. She had no illnesses and never considered herself nervous or hysterical. In college she had the usual courses in psychology but knew practically nothing about abnormal psychology. She had been specially interested in sociology and had done some social service work in Boston. She was a teacher of English and later married a professor of English in a western town. She had a fine intellect and a charming personality.

Just previous to the time of her automatic activity she had worked very hard and had begun to feel run down.

[1] Reprinted, by courtesy of the author and the editor, from the *Journal of Abnormal Psychology*, vol. 17.

The physicians she consulted told her she was overtired and had some slight cardiac disturbance. Aside from this condition of fatigue she appeared to be normal physically and mentally. One day when in the state of fatigue, it was discovered that the Ouija Board was working unusually well for Violet X——— and Dr. Richmond was prompted to test her ability to write automatically. This started a series of records which were obtained during a period of several months. The first attempts were not so brilliantly successful, but with repeated attempts a marvelous facility for writing developed and with this an increased tendency to dissociate appeared which finally became so alarming that the experiments were abruptly terminated.

During the period of experimentation no less than seven distinct recurring personalities emerged, together with several minor ones. Each had a name and a handwriting more or less individual. Each spoke of herself or himself in the first person, giving detailed answers to questions, coherent accounts of themselves and admonitions and advice to the experimenters. Half a dozen different personalities might come at one sitting, interrupting one another unceremoniously, and sometimes even rudely. The personalities, once established, would often appear when called, coming with the remark: "So and so is here, what do you want?" Miss Violet X——— maintained the same attitude as the other experimenters, questioning or replying to what the hand was writing. Any levity on the part of the subject or the others was apt to call forth scathing remarks from the secondary personalities. Miss X——— with one exception retained her own personality and was fully aware of what was going on, although she by no means always knew what the hand was writing; but as will be seen, her behavior was different when the different personalities were asserting themselves. In the following account it must be remembered that they appeared at different times throughout the several months of the experiment and that often several came at one sitting; but they shall be taken up, one at a time.

The first of these personalities to appear and the one who appeared most frequently and had the most to say was

Annie McGinnis. Annie immediately drew a portrait of herself and it was a very clever picture. (In her normal personality Miss X——— could not draw at all.) Annie's story as she told it at various intervals is the following: Annie was a poor girl who had fallen through no fault of her own, but had been led astray by a man who had promised her food and shelter and an easier life. After that she became a prostitute, and finally died in giving birth to a child; she suffered greatly because of her sins and wandered aimlessly about until she found Miss X———, with whom she took up her abode "because," as she said, "you are so good, I love to be with you." Annie, true to type, was coarse, rude, quick-tempered, resentful, reckless and passionate. Whenever she appeared she took charge in a whirlwind fashion and if she happened to be in a good humor, she was a great blarney. Whenever Annie appeared, Miss X——— would be seized almost as though with a convulsion; her arm would stiffen and the fingers would grip the pencil tightly and write in a coarse, flowing hand; or her feet would pound on the floor while the arm would bang itself on the table with enough force to cause considerable pain. The pounding occurred, Annie said, when she thought of what men had done to her. Annie hated men with large capital letters and often after one of the male personalities had been recording she would obliterate all traces of these records by scribbling over the entire paper.

During Annie's appearance, Miss X——— often was observed to have a peculiar expression on her face which grew more marked toward the latter part of the experiment. Her eyebrows were raised and she looked almost frightened. Sometimes she would grit her teeth and press her lips together firmly.

Mary Patterson was the next personality. Her handwriting was very much like Miss X———'s normal writing. She used the best English and in general was more like Miss X———'s primary personality than any of the others. She came quite seldom and when she did she was apt to be rather rudely ousted by some of the more aggressive ones. Mary declared she was Miss X———'s most familiar spirit.

Mary Minott was a third personality. She described herself as a cosmopolitan and very talented. She hated Mary Patterson and called her a prig, full of puritanical notions. She would bitterly upbraid Miss X——— for preferring Mary Patterson to her. She insisted that if Miss X——— would only listen to her she would make her a famous designer, and to prove it she designed a number of beautiful dresses (Miss X———normally could not do this at all). Mary Minott had a perfect passion for designing gowns and she had talent that amounted almost to genius.

A fourth personality, persistent and always unwelcome to Miss X——— was Alton. Unlike the others, he was no myth but a friend of her fiancé, whom she had met the previous summer. He wrote the most sentimental things and seemed to try to dissuade her from marrying the man to whom she was engaged. Alton was always urging Miss X——— to give herself up to mediumship, saying that the spirits of both the dead and the living could speak through her. He admitted that it was sometimes dangerous but felt he could guard her from harm.

Miss X———'s father was the other personality who purported to be dead, as he actually was. This personality assumed the actual handwriting of her father. He did not appear often and then only made hurried remarks about family affairs.

A sixth interesting personality labeled himself simply "the Spirit of War and Desolation." This spirit sounded dreadful warnings (it was just prior to America's entry into the war) and urged Miss X——— to work for the Red Cross. This personality alternately urged Miss X——— to give up automatic writing and to take up the study of mediumship for which she was told she had rare talent.

The last personality to develop and the one who finally caused the disruption of the experiment, called himself merely "Man." In the beginning he was not at all distinct, neither with regard to handwriting nor to the content of what he wrote. At first he would break into some other conversation with totally irrelevant remarks and when

questioned would give only ambiguous answers or none at all. Finally, however, he identified himself as Man and would alternate with Alton, but he developed such an antipathy toward Alton that he succeeded in banishing him altogether. He also fostered an intense dislike for Annie McGinnis, who hated him in return in letters two inches high. She considered him the incarnation of all her enemies. "Man" tried to banish her, but nothing could banish the flippant and irrepressible Annie and she took particular delight in scribbling all over the things he had written.

These two personalities now had the field pretty much to themselves and "Man" became more and more persistent and dominating. A change began to come over Miss X——— when he was in control. She first mentioned it herself, saying: "I feel different when 'Man' is present than I do with any of the others; there is a feeling of power and vigor and I don't want to sit still, I want to run or express myself in some vigorous physical way." "Man" soon expressed an interest in dancing and would fill sheet after sheet with marks produced through rhythmic motion of the pencil, becoming more and more energetic as time went on. He would write occasionally—"Let's dance, Violet." Miss X——— began to say she believed she really could dance spontaneously if she would give herself up entirely to the feelings, but she was always a little afraid to try.

Toward the end of the experiment some three months after it was begun, Miss X——— was writing quietly one evening when "Man" came and as usual began to dance. In a moment Miss X——— spoke loudly and said: "Oh—I want to dance—I believe I can dance," and getting to her feet she began to sway rhythmically back and forth. The swaying became more and more violent, her arms began to wave and her feet to execute a curious shuffling movement. Suddenly her body gave a violent wrench and she cried out in a sharp, high voice. Her face depicted the emotions of a tremendous struggle, ecstasy and terror contending for expression. She was taken to a couch by the experimenters, where for about ten minutes she remained stiff and moaned in an unnatural voice. Gradually she re-

sumed her natural speaking voice, relaxed and returned to normal, and though rather terrified by the experience, she was able to discuss what her feelings were. She said she tried to control the movements and suddenly realized she couldn't—it was as if something were making her do it and she couldn't stop. She declared she was in fear of losing herself and of another personality gaining control. She said: "I wanted to give myself up to it and yet I didn't want to. I can't describe it, but I felt as though I were two people."

After this experience, Miss X——— was strongly dissuaded from trying anything more, but she did try it a few times and always "Man" came, telling her he represented all the vigor and love of action in her. He always wanted to dance. After this came her marriage and the automatic writing was largely forgotten for several months, but one day when she was alone she decided she would try it again. This time Mary Patterson, "the most familiar spirit," came and explained that all the other personalities were completely submerged and lacked sufficient intensity to be able to express themselves. After this no further attempts were made.

Miss Violet X——— was tremendously interested in all the manifestations and introspected carefully and sincerely. She felt that none of them expressed things outside her own experience except Alton, who was a real person. However, after repeated attempts at analysis Miss X——— recalled a conversation with her mother after her meeting with Alton which satisfactorily accounted for the genesis of his remarks, and after this explanation he gradually disappeared.

Miss X——— felt that Annie McGinnis was entirely explicable. She had been strongly impressed in her experience in social work with the idea that only the accident of birth and training had saved her from such a life as that led by some of the girls of the lower economic classes. Annie was, in part, the systematized expression of ideas, once acutely conscious but largely relegated to the paraconscious where they continued active, and she was also the means of expressing the polymorphous perverse sexual tendencies of

the personal unconscious. She further illustrated a distinctly compensatory trend, for her expressions of hatred for men were probably the outcome of the ambivalent opposite emotional tendency.

"Man" undoubtedly represented the bisexual trend of the subject and came, if not wholly, at least to a great extent from the personal unconscious. His desire to dominate, as well as the assertive and very aggressive tendencies manifested, appear much more instinctively masculine in character than feminine. The power and vigor of expression as well as the greater freedom from repression in this personality seem to be evidence of the same phenomenon. . . .

An attempt will now be made to briefly summarize the points which have been illustrated.

1. Automatic activity and dissociation constitute a reversible reaction. The greater the tendency to automatism the greater the danger of dissociation. Violet X——— as she attained her greatest proficiency in writing also came very near to having a complete cleavage of the personality. This was when "Man" insisted she should dance.

2. The Paraconscious [2] is the chief abode of automatic activity and may consist of dominant and active states, the latter of which are apt to produce personalities which are concomitant with the original personality. Mary Patterson knew all about Violet X——— and what she thought and did—on the other hand, Violet X——— knew nothing of what Mary Patterson thought. Annie McGinnis also knew what Violet X——— thought and also what the two personalities "Man" and Mary Patterson thought.

3. The Personal Unconscious [3] besides being the zone

[2] The paraconscious is "that state in which ideas and images are beyond the field of awareness but which are not too difficultly recallable. If the ideas and images of the paraconscious are dormant then we have a state which was formerly described as the foreconscious and the subconscious; if the ideas and images are active and independent then we have a state which has been called the coconscious."

[3] The unconscious is:

(a) "that state in which the records of the experiences of our lives are retained and conserved, no matter in what condition they were impressed; whether in normal consciousness, in the hypnotic

where the impressions of the most deeply repressed and lost experiences are left, also contains the elemental instincts of the personality and may so color the paraconscious activity as to suggest many unusual trends. . . .

If it is seen that a certain tendency to dissociation in a given person exists and that in the secondary personality developed there is a suggestion of latent abilities and talents—would it not be worth while to deliberately break up the synthesis of the mental states and resynthesize the subject into a more culturally successful and economically efficient individual by means of either hypnotism or analysis, or both combined?

In conclusion I should like to state that in view of the evidence offered, I believe I am justified in assuming that automatic writing is an indicator of the fundamental factors underlying the personality and that it may be considered an especially valuable instrument in the study of mental disturbances of psychogenic origin, to reveal the predominating elements of the patient's mental make-up.

state, in dissociated personality, or in hysterical crises. These complexes . . . are not readily accessible and recallable. . . . Put very simply the personal unconscious is the individual's mental lumber room."

(b) "that which constitutes the haziest part of the background, and is that state in which the instincts of the development are impressed. These instincts while influencing the individual's reaction are beyond any form of recall. It is thus seen that although the conscious, paraconscious and personal unconscious are capable of affecting each other reciprocally, the genetic unconscious while exerting an influence on the preceding states, can never be influenced by them because it represents the residual left in the wake of a development for which our present powers of interpretation are wholly inadequate."

WAKING HYPNOSIS[1]

BY DR. W. R. WELLS

The technique of waking hypnosis which I employ may be described in part by contrasting it with the usual method of sleeping hypnosis. To hypnotize by the most usual sleeping method one begins by explaining to the subject the psychological conditions of normal sleep. One calls attention to the part played by a lessening of external stimuli, especially light and sound, by the concentration of attention on some one simple situation, as in the classic method of putting oneself to sleep by counting sheep, and by the sleep-producing effect of slight monotonous stimuli. One may speak of the way in which the mother puts her child to sleep, and of the sleepiness that often comes upon a man while in the barber's chair, experiencing the manipulations of the barber. The hypnotizer explains that he is about to employ similar methods to induce in the subject first a drowsy condition and finally a condition of deep sleep, like normal sleep except that the subject will always be conscious of what the operator is saying. Then, in terms of the usual immobility of the body during sleep, contractures may be explained. In terms of normal dreams, illusions and hallucinations occurring in the hypnotic sleep are made clear. Amnesia that may follow the hypnotic sleep is compared to the amnesia for one's dream that usually follows waking from natural sleep. Somnambulism in the hypnotic sleep is compared with the somnambulism that sometimes occurs in natural sleep. Then the hynotizer proceeds to suggest drowsiness in various ways. He may have the subject gaze fixedly upon a bright object and at the same time

[1] Reprinted, by courtesy of the author and the editor, from the *Journal of Abnormal Psychology and Social Psychology,* vol. 18. [Title here abbreviated.]

suggest that a feeling of drowsiness will begin to appear. If the eyes soon close so that the subject cannot open them, the operator says this is because of the sleep that is overcoming the subject. Passes may be used, accompanied by suggestions of sleep; and so on, according to old and familiar methods. The subject manifests increasingly the external signs of drowsiness, and actually begins to feel drowsy and sleepy; and finally he may fall into the somnambulistic state, though more frequently stopping short of this.

Now, in all this there have been the following features: first, a preliminary explanation in terms of sleep; second, a continued suggestion of sleep by direct and indirect means; third, an experiencing by the subject of the familiar symptoms of drowsiness and sleep; and fourth, some of the external bodily signs of drowsiness and sleep. Those who, like Münsterberg, Sidis, Coriat, and Prince, as referred to above, explain hypnosis primarily in terms of concentration of the attention and of dissociation, without reference to sleep, would not give a preliminary explanation to the subject such as I have described; but the other three points which I have mentioned would apply in most cases to their practice of hypnotism. In what I call waking hypnosis, however, all four of these features are absent; sleep is not mentioned in the preliminary explanation to the subject; sleep is not suggested, directly or indirectly; the subject experiences neither drowsiness nor sleepiness, if we may trust his introspective account; and there are present none of the objective indications of drowsiness or sleep. . . .

Waking hypnosis may be used either in group or in individual experiments. The group experiment has two main purposes (aside from its therapeutic uses): first, to teach large numbers easily and quickly, through their own experiences as subjects or through observation of a considerable number of other subjects, the meaning of hypnosis; and second, to select the better subjects for individual experiments. After a preliminary explanation to a group of students regarding the chief principles of dissociation and of suggestion, direct suggestions to the group that their eyes,

when closed, cannot be opened, or that their hands, if clasped together tightly, cannot be unclasped, will cause such contractures in a considerable proportion, if not in the majority or even all, of the group, if made properly, as a little experience enables any one to make them. I recently obtained results with 100 per cent of a group of 12, and a few months ago I obtained results with 24 of a group of 28. In no instance have I failed to get results from some members of the group.

In individual experiments the meaning of dissociation and the fact of the independent functioning of dissociated "neurograms" (to use Prince's term) may be illustrated by suggesting to the subject in the waking state amnesia, for example, for his name, and then by causing, through appropriate suggestions, automatic writing of the name while the amnesia still persists. By proper suggestion to a good subject one can cause automatic writing such that the subject is not aware either of what his hand is writing or even that his hand is writing anything. To do an experiment like this by waking hypnosis takes only a short time, seems very matter of fact, and can be done with subjects who have never been hynotized before. If one wishes in this connection to illustrate how the planchette works, a planchette may be substituted for pencil and paper. In elementary classes this is worth while. It was Gurney, as James relates, who first conceived the idea of using the planchette to "tap" the subconscious processes involved in post-hypnotic suggestions; but Gurney used sleeping hypnosis for this purpose.

Such an experiment as I have described would illustrate what Prince devotes considerable space to, in *The Unconscious* (pp. 15ff.), namely, the conservation of forgotten experiences. An experiment designed to show the independent functioning of dissociated neurograms in a greater degree is Prince's experiment in subconscious calculation (page 96). This experiment, however, can be done by means of waking hypnosis, with subjects never before hypnotized. With a subject in whom amnesia can be produced quickly in the waking state, a problem in mental arithmetic may be given, for which amnesia is produced immediately,

before there is time for any effort at solution. The suggestion may be made that the answer will be written automatically at the end of five minutes, with complete amnesia for the problem persisting during this time. In the working out of these suggestions we have an illustration of the simultaneous activity of the dissociated cerebral processes involved in solving the arithmetical problem, and of other cerebral processes involved in conscious attention to the class discussion or to some assigned task. Professor Woodworth refers approvingly to one of Prince's experiments of this sort, with a subject, however, who has a double personality; and Professor Woodworth says, "It is weird business, however interpreted, and raises the question whether anything of the same sort . . . occurs in ordinary experience." If the experiment is done with a subject never hypnotized before, selected from the class, and in a completely waking state, there is nothing in the least "weird" about it; and it answers the question which Woodworth asks in the last part of the sentence quoted above, being evidence that "separate [cerebral] fractions of the individual" can and do function independently and intelligently at the same time, in strictly normal and healthy subjects. . . .

The step to effective autosuggestion, or autohypnosis, is shorter from waking than from sleeping hypnosis. My usual routine in giving a first lesson in autosuggestion is first to close the eyes of the subject, then to produce contractures of the hands, and then to produce analgesia in one hand or arm—all by direct suggestion in the waking state. Then I ask the subject to produce the same results by his own suggestion to himself. After he has done this, instruction may be given in the effective use of autosuggestion in various practical ways. I recently gave an interesting lesson in autosuggestion to one of my students. When he had produced analgesia in his right hand by autosuggestion alone, he was still unconvinced by the test of pinching with his left hand, and he asked for a needle. I gave him one, properly sterilized. He pricked his right hand repeatedly, so that the blood flowed from each needle wound, before he could fully satisfy himself that he had actually learned

to produce analgesia by autosuggestion. As a final illustration of the practical application of the principles of waking hypnosis, I removed by direct suggestion a headache of which the subject had complained at the beginning of the experiments. A further lesson is apparently needed by this subject, however, before he will be able to use autosuggestion effectively in practical ways; for he reported two days later that he had been able to produce contractures by autosuggestion, but not analgesia, when working alone.

The following description of a series of experiments in waking hypnosis carried out during a single class hour, on the first occasion of reference to hypnosis, shows what can be done in a short time. If more time is at one's disposal, variations and elaborations of such experiments are possible. At the end of one class hour I did a group experiment with the whole class, of fifteen students, in order to select the better subjects. Then, at the beginning of the next class period one of these better subjects volunteered for individual experiments. The subject selected was a man about thirty-five, never before hypnotized (except in the group experiment of the day before), and with a good history of physical and mental health. I first tested him to see if amnesia could be produced in the waking state. I readily produced amnesia for his name, with the suggestion that his hand would write it, while the amnesia still persisted. Pencil and paper were then provided, and his hand was concealed from his view, behind a screen. His hand immediately began to write his name. When the name was about half written the subject spoke up to say that he was sorry that the experiment did not seem to be working. After the name was completely written, and after amnesia for his name disappeared in five minutes as had been suggested, his writing was shown to him. The genuineness of his surprise and interest may be easily imagined. I next tested his normal ability in mental arithmetic, finding it fair. Then I made preliminary suggestions to him of the waking hypnotic type. I explained that I would give him a problem in multiplication, which he would solve subconsciously and the answer of which he would write automatically, with amnesia all the while both for what the problem was, and

for the fact that a problem had been given to him. I then said, "Multiply 175 by 25," and I *immediately* thereafter caused amnesia for the figures and for the fact that a problem had been given. Then, testing his normal conscious attention to the class discussion, which I continued, by asking him miscellaneous questions, I allowed time for the subconscious computation of the problem and for the automatic writing of the answer. His hand wrote 4,325. The correct answer to the problem is 4,375. In tests given to the subject in the solution of similar problems before dissociation had been produced in waking hypnosis, similar errors had occasionally been made. I have in general not found subconscious computation either more or less accurate than the conscious solution of similar problems. I next caused by suggestion a sharp burning pain on the back of one hand, which I touched with a pencil. Amnesia for the cause of the pain was produced, and the pain remained constant for a minute, as had been suggested. I had produced analgesia in his right hand as one of the preliminary experiments. I have found it generally more difficult to cause pain by suggestion than to cause analgesia.

As a final experiment towards the close of the hour, I illustrated subconscious perception. I tested the subject's memory for details of the clothing of a man on the back seat of the classroom, a man, however, whom the subject had talked with earlier in the day. Finding him unable to recall any details whatever of the man's clothing, I tried the method of automatic writing without the use of hypnosis, and got an imperfect description. Then, through waking hypnosis I obtained a detailed and accurate description of the man's clothes. He persisted in saying that the man wore a white shirt with a dark stripe in it, in spite of suggestions from me that he would gradually come to recall it more accurately. To me the shirt seemed to be pure white; but after the termination of the experiment I discovered that there had originally been a dark stripe, which had faded out to such an extent that it was not visible to me at a distance of ten feet.

In conclusion I might add that I am interested in the employment of the ordinary type of sleeping hypnosis for

some purposes, especially in therapeutic work. I am interested in the sort of psychoanalysis by means of hypnosis which Dr. Hadfield, in England, has called hypnoanalysis; and in attempting to remove phobias, for example, through hypnotic exploration of childhood, or later, amnesias, I have thus far preferred the sleeping type of hypnosis. However, I almost invariably begin the induction of sleeping hypnosis by the method of waking hypnosis described above; and I do not begin to suggest sleep until suggestions of contractures in the waking state have been effective. In this paper I have chosen to limit my discussion to waking hypnosis, and to emphasize its possibilities; for, if its possibilities were generally recognized, as is very obviously not the case, much of the present disinclination among psychologists to the use of hypnosis for experimental purposes would, I believe, entirely disappear.

THE DORIS CASE OF MULTIPLE PERSONALITY[1]

BY DR. WALTER FRANKLIN PRINCE

As an easy introduction to the Doris Case I will ask the reader to put himself in my place in the late fall of 1910, when I still supposed that it was one of hysteria only. You are talking with a somewhat stolid looking young woman with apprehensive manner and nervous laugh (Sick Doris), when suddenly you note what seems to be an odd change of mood (Sick Doris sinks into the depths, and Margaret "comes out"). Though not startling in its abruptness and antithesis (the personalities are on their guard, more or less, to preserve their secret) yet she now has an air of restrained mischievousness, her demeanor is in some indefinable way more childish, her laugh is freer and her remarks often naïve. Presently the stolid look comes back but with a difference, there is a tendency to chuckle, the signs of nervousness are increased, and in the eyes is a peculiar fixity of regard (Sick Doris has returned, but Margaret is now more intently watching underneath, and is amused, disturbing the consciousness of Sick Doris). Later you begin to talk about books or pictures, and suddenly note that the girl is no longer stolid or childishly gay but is following what is said with lips parted in a happy smile and face fairly luminous with interest (Real Doris has taken Sick Doris's place), and you congratulate yourself upon the choice of a subject which has evoked such an intelligent appreciation. At another time the transition from reserve

[1] Reprinted, by courtesy of the author, from *The Doris Case of Multiple Personality,* in the *Proceedings of the American Society for Psychical Research,* vol. ix. With the author's consent, minor alterations have been made in the manner of presenting the narrative.

and stolidity to the rollicking and humorous "mood" is more pronounced (Margaret is somewhat off her guard, and is acting more according to her real nature). Gradually you begin to note oddities and contradictions. You expect her to partake of a dish for which she expressed an evidenced fondness yesterday, and she cannot be induced to touch it, but declares that it is not agreeable to her. At the very next meal she devours a quantity of it (Sick Doris did not know that Margaret had said she liked the article of food and had eaten it, and Margaret, while aware of Sick Doris's refusal and remark, was herself too fond of her favorite dishes to decline them on account of the risk of discovery). Often she repeats a story within a few hours of the first relation, and seems confused when reminded of the fact that she told it before, saying, "Oh, I forgot that I told you that—I thought it was some one else." Not infrequently she contradicts a statement lately made by her, or expresses an opinion at variance with one previously uttered. Sometimes at a "change of mood" there seems to be a hitch in her part of the conversation, she seems for a few moments to be talking somewhat at random. You have not noticed that the moods succeed each other in a certain order when followed by this momentary conversational obscuration. On the whole, she impresses you as being a very mercurial young lady of unsettled mental habits and not uniformly veracious character.

Similar impressions prevail among her acquaintances and even her relatives. Intuitively, as seems to be the rule in these cases, she has felt that she is different from other people, and the group of her personalities has guarded the secret, all except the primary one more or less masking their peculiarities, in proportion as the demeanor of persons with whom she is in company gives token that caution is necessary. Paradoxically, she is in least danger of discovery by those who have known her all her life. They are wholly ignorant of the literature of abnormal psychology, and have been so familiar with her oddities that nothing about her can now surprise them. It is the new acquaintance, known to be well-read and noted to be observant, of whom the group of personalities stands in awe, and with

whom they take the most pains, not uniformly maintained nor always successful, to dissemble their individual differences.

When Margaret followed Sick Doris or Real Doris, she came with the knowledge of all the sensory impressions and thoughts of the prevoius state. The same was true when Sick Doris supplanted Real Doris. But it was otherwise when the alternations occurred in the reverse order. If Real Doris came directly after a Sick Doris or Margaret period, or if Sick Doris followed Margaret, the present personality was utterly ignorant of what had previously taken place. Whatever had been done, said, heard or thought by her predecessor was to her absolutely unknown except as she could make shrewd inferences from her situation at the moment she "came out." Of course, when the transition was in the order that did not break the mnemonic chain, a conversation, for example, could be carried on across the barrier with perfect ease. But what was the personality to do that came on deck by a sequence that involved amnesia, and found herself engaged in a conversation of whose nature she had no idea whatever? She would do what is always done in cases of this kind, "fish," pretend that she did not hear the last remark of her fellow-interlocutor, appear to have her attention attracted by an object of enough interest to cause her to begin to talk about that, and by various other devices to mark time until with shrewdness developed by practice she was able to get her bearings.

A SKETCH OF THE PERSONALITIES

MARGARET

Margaret was mentally and emotionally a child of not more than ten years, with some extraordinarily naïve notions not usually carried beyond the age of five or six. Her facial expression was strikingly childlike, her voice in speech or laughter that of a young tomboy, her point of view, mental habits and tastes in every way juvenile. When alone with friends who knew her secret so that she acted

as she felt, her speech and whole demeanor were such that one almost forgot that the bodily size did not comport with all else which so consistently constituted the make-up of a child. She was mischievous, roguish, witty, a consummate mimic, ingratiating, winsome and altogether lovable, as a rule. She delighted to sit cross-legged on the floor and show her dolls and the trumpery contents of "her drawer" to grave doctors and other professionals who had been initiated, and by her delightful drollery would send them into gales of irresistible laughter. She alone of the group was slangy, and mispronounced or misspelled many a word which offered no difficulties to Real Doris, Sleeping Margaret, or even Sick Doris. Although she had direct access to all the thoughts of the primary personality, many of these thoughts were as incomprehensible to her as is the political and scientific conversation which a normal child may daily hear but let pass idly by. She devoutly believed in fairies, and was amazed that I had not learned that doctors find babies on river-banks and take them to expectant mothers in their satchels. She fibbed and romanced for the fun of it, but could not avoid a betraying twinkle of the eye while doing so. It was a mystery to her why Real Doris and Sick Doris cared for church or Bible-study. It was not that she was opposed to religion, she simply could not comprehend it—it was all "dumm stuff" to her. She was demonstrative and affectionate, the antithesis of Sick Doris in this respect. She possessed a form of visual hyperæsthesia which enabled her to make her way with ease about an almost completely strange room so dark that I could not have moved three steps without getting into difficulties. Her auditory hyperæsthesia was still more extraordinary, as many incidents will show. She could hear at thirty-one feet the ticking of a watch which was audible to the ordinary person less than five feet away. One is almost tempted to say that she could hear the grass grow.

SICK DORIS

Sick Doris was characterized by woodenness of expression, her face, probably from relaxation of the muscles, was broader and more flabby than that of Margaret in

particular, her eye was dull, lacking in the glee and mischief of Margaret's and the wide-open intelligence of Real Doris's. Her glances were apt to be somewhat furtive, while both Real Doris and Margaret always looked you directly in the face. Her voice had a quality hard to define, lacking the soft, womanly modulations of Real Doris's voice, and the infinite variety of tone-color in that of Margaret; it was somewhat monotonous and metallic. In manner she was reserved, half independent—half deprecatory, and nervous. Having no capacity for affection, she was nevertheless capable of a dog-like friendship, which never manifested itself by caresses, but only by a disposition to seek the society of its object, to perform tasks for her and to make her presents. Thus, for many months during which both she and Margaret were endeavoring to avoid meeting me for fear that I would discover their secret, and were even resolving to stay away altogether, she was yet brought back to sit and talk with Mrs. Prince, as by a hypnotic spell. She was a slave to her narrow conceptions of duty. Her chief joy was to make and present gifts to her friends, and she did this to an extent which exasperated Margaret, and which the calm judgment of Real Doris would not have approved. She was religiously inclined without Real Doris's well defined reasons for being so, while Margaret was frankly pagan. Her sense of humor was not keen. A joke about a man who had a wooden leg which sprouted under the stimulus of a powerful liniment would only puzzle her —and she would wonder how it could be. Nor would Margaret see the humor of it, since to her childish fancy almost anything was possible. Real Doris and Sleeping Margaret, on the other hand, would compass the grotesqueness of the conceit in a moment and laugh heartily. While she never learned certain elementary manual operations which were easy even to Margaret, such as the proper way to set the hands of a clock, in other directions her manual skill was the greatest found in the circle of the group. Embroidery, for instance, Margaret could do in rather clumsy fashion, while Real Doris had some degree of skill, but Sick Doris's work was exquisite. Not only did she embroider with artistic dexterity, but this and some other species of work she

was capable of performing at phenomenal speed with no impairment of quality; though it must be added that in such cases she enlisted, by some obscure process of compulsion, the coöperation of Margaret, and consequently brought upon herself revengeful reprisals. Suggestible to a degree, she was also subject to that narrowing of the field of attention which results in so-called fixed ideas.

SLEEPING MARGARET

Sleeping Margaret, whose title is a misnomer, in that she was neither Margaret asleep nor in any respect like Margaret, was the especial riddle of the case. From appearances one would say that she always slept, since she practically never talked except when the eyes were closed, but she professed never to sleep, and in fact was never known to wander in her speech or to oscillate in the clearness of her understanding. We have seen that Real Doris, Sick Doris, and Margaret each part of the time reigned supraliminally, and each part of the time became subliminal, the latter two consciously so. But it is hard to fix Sleeping Margaret's status, whether it was ever strictly supraliminal or strictly subliminal. When Margaret was "out," to use a quasi-technical term employed by the personalities, meaning supraliminal, Real Doris and Sick Doris were "in," that is subliminal. Likewise when Sick Doris or Real Doris was out, the remaining two members of the trio sunk into the interior depths. But, up to a late stage, Sleeping Margaret talked only when Margaret was out, though asleep. There was no question that Margaret was supraliminally there and sleeping in her curious fashion, for though mysteriously inhibited from hearing Sleeping Margaret talking with the same lips, she often made remarks in her own very different tones, sometimes cutting a sentence or even word of Sleeping Margaret's in half, and performed her characteristic acts unconscious that she was interfering with another. The expressions of the two flitted across the face in turn, or were sometimes momentarily blended, and many illustrations will be given of the two consciousnesses acting at the same time, now in unison, but more frequently at cross-purposes. Sleeping Margaret

seemed to be as truly "out" as was Margaret sleeping, and yet is it possible for two mental complexes to be operative not only at the same time but at the same psychical level? Sleeping Margaret herself would say, "I am NEVER OUT or IN; I am always HERE." It was held that subliminal Margaret was nearly always conscious, ranging through three degrees of awareness, from intense to obscure. Sleeping Margaret professed to be always conscious, SOMEWHERE, without distinctions of degree. Even as Margaret disclaimed proprietorship over parts of the body, Sleeping Margaret uniformly disclaimed ownership of any part of it, yet she had limited and intermittent control, during the sleep of Margaret, or at a later stage of Real Doris, of the facial muscles, the instrumentalities of speech, and of the limbs. She went so far as to sit up at times, but never to walk or stand, giving the reason, however, that this would endanger waking and frightening the personality sleeping. She would often smile sedately or even break out into laughter, especially at some odd speech or antic interpolated by Margaret. Mentally, she seemed the maturest of all, in fact impressed me as if she were a woman of forty. She was my chief coadjutor in the cure, though Margaret was also generally anxious to help, studied the progress of Real Doris, and gave valuable information. But Sleeping Margaret studied the interior situation unremittingly, watched the result of my experiments and reported thereon, suggested measures which often proved of great importance, and made predictions as to the development of the case which were nearly, not quite, always justified by the event.

SLEEPING REAL DORIS

Sleeping Real Doris is the name which Margaret very properly applied to a somnambulic personality which was created at the age of eighteen, in consequence of a fall and injury to the head and back. She would make her appearance only now and then after Real Doris had fallen asleep, and it is doubtful if she ever rose fully above the threshold or Real Doris ever sank completely below it during her manifestations, though the latter was not conscious of her

or any more aware of her existence than of the existence of Sleeping Margaret. She was like the fog which exhales from a lake and hangs over its surface. It is doubtful if she had self-consciousness. Yet she had her peculiar facial expression when she was reacting to external stimuli, one of quizzical puzzlement; her characteristic harsh, croaking tones, on the rare occasions in which her utterances were not those of an automatic transmitter; and repeated tests showed that she had memories which were not those of Real Doris or Sick Doris, but were exclusively her own.

SKETCH OF THE HISTORY OF THE CASE

THE FIRST DISSOCIATING SHOCK, AND THE RISE OF TWO SECONDARY PERSONALITIES

When about three years old, her father in a fit of anger dashed her to the floor. It was in the midst of the previous quarrel, according to her statement, that Sleeping Margaret came into being. It was a few moments after the act of violence, according to both Sleeping Margaret and Margaret, that the existence of the latter began. Consistently, the account of the incident by Margaret (who had no insight into the mind of Sleeping Margaret) lacked the earlier details mentioned by Sleeping Margaret. Margaret often related that the first thing she ever did was to make the crying Real Doris play with her fingers and toes. Furthermore, she asserted, she used to make the child Real Doris "see things that weren't there," cause her to hear "choo-choo," ask her what her name was, etc. Later—and this Real Doris well remembers—the two would have long conversations together, Margaret's replies being made aloud (at times), and with the same lips, but without Real Doris's volition or slightest previous knowledge of what would be said. Margaret early asserted her own rights to certain property and demanded deference to various personal tastes. One early lesson remembered by Real Doris was that of letting Margaret's ball alone. She was impelled by a will not hers to pick up the ball with her left hand and to transfer it to her right hand, then the left hand plowed

scratches in her cheeks and eyelids until they bled. From the time that she was four until she was about eight, her face was seldom entirely free from scratches, because she could not learn to keep her hands away from Margaret's property. When the lesson had been pretty thoroughly mastered the scratching mostly ceased, to be renewed only when Real Doris became rash again.

When Real Doris began to go to school at the age of six, she at first had a hard time, for incessantly there emerged in her consciousness the clamors of Margaret unused to such monotony, "Come on! Let's go out!" It was difficult for Real Doris to study, and often Margaret coming would cut some ridiculous caper, and set the room in a giggle. Sometimes, in hot weather, Margaret would come and dash from the room without permission, later imperturbably returning, her head and perhaps her garments dripping with water. As Margaret came to realize that Real Doris could not be blamed for going to school her complaints ceased, but not her outbreaks and her astonishing speeches. In spite of all drawbacks, Real Doris secured high marks in her studies, but not for conduct—that was quite impossible. Ofttimes she came to consciousness to find herself being chided for misbehavior of which she knew nothing. Margaret came out regularly to practice writing and to conjugate, since she liked these exercises, but seldom for any other recitations, except to help out Real Doris in case of emergency. And so the days of school-life wore on, until, in spite of all drawbacks, Doris was ready for High School at fourteen, the youngest but one in a class of fifty-two. But here Margaret put her foot down, and declared, "No more school!" She would not even permit Real Doris to go and fetch her diploma, fearing that this would be the threshold to the attainment of the desire to enter the High School.

Invariably it was Real Doris who started up-stairs for bed. Invariably Margaret came at the head of the stairs, and invariably Real Doris knew no more until she found herself down-stairs in the morning. But in the meantime what things had happened! When very young she slept with others, but caused them such annoyance that finally

she was relegated to some quilts on the floor by a window. Margaret spent a longer or shorter time each night in playing, as evidenced by what Real Doris would find in the morning. She would also, until the period when she so far fell behind Real Doris in mentality that she was incompetent to do so, write out the school exercises for the next day. She likewise would write notes to Real Doris to read, advising, reproaching, commanding her, according to need. Perhaps two years before the schooling was over Margaret ceased to help in the exercises, because they had become too advanced for her. She had reached the limit of HER intellectual expansion, while that of Real Doris went on. Margaret was then of the mentality of an average girl of ten, and such I found her ten years later.

SECOND DISSOCIATING SHOCK AND ADDITION OF SICK DORIS TO THE GROUP OF PERSONALITIES

At about six in the afternoon of May 5, 1906, Mrs. ——, who had appeared perfectly well in the morning when Real Doris left to go to work, lay down, suddenly ill. The stricken woman died at two in the morning. Real Doris, overcome with grief, and undergoing a raging headache, nevertheless managed to maintain her individuality until she had performed the last offices in her power for her dead idol, whereupon Margaret took her place. Almost immediately thereafter a terrible pain shot through the left cerebral hemisphere, Margaret vanished, and a new personality, afterwards to be known as "Sick Doris," came into the drama.

SICK DORIS AN "INFANT" PERSONALITY

She came without memory of any event whatever, of any face, any object, or the use of any object. She did not remember a single word, either to speak it or to understand its meaning when she heard it spoken. She instinctively moved her limbs, walked and handled objects with her fingers, but she did not know how to eat, and when she imitatively drank coffee it simply ran down her throat, for she did not know how to swallow. She did not understand how to undress herself, or that she should undress

or that the dress was a thing separate from herself. All affection was gone, and all grief; not a tremor remained of the mental agony of a few moments before. She was as one born with an adult body, and a maturely-inquiring mind, but with absolutely no memory and absolutely no knowledge.

She found herself sitting on the edge of the bed looking at two similar shapes. She did not wonder how she herself came there or regard herself at all,—her first mental experience was a languid curiosity as to why one of the similar shapes moved while the other was quiet. In fact, movement and immobility first seized her attention, and her main problem for the first two days was why similar things did not always behave in similar fashion. She did not inquire why chairs did not move about of themselves, for no chair did. But every figure of the shape of those prostrate ones of the first evening moved except one; consequently that one, the corpse, fascinated her, and she sought occasions to experiment upon it to see if she could make it move. During the first days she wondered why some were doing a thing to her incomprehensible (weeping) and others were not doing the same, why one figure only was horizontal and yet in motion (the sick sister), while the rest, with the exception of the motionless one, were in different and changing attitudes. Differences of any kind were the first objects of her mental inquiry which she had no words to express, and particularly differences in respect to movement.

THE EDUCATION AND DEVELOPMENT OF SICK DORIS

She comprehended the most primitive type of language first, that of gesture. And here a swift process of inference, experiment and verification entered. For example, when in the morning she entered a room where her sisters were drinking coffee, they handed her a cup. She saw the cup approaching, saw that they held similar objects, inferred that she was to take it, and since after she did so nothing else happened concluded that she had done what was expected of her. She quickly learned to interpret expressions, and involuntary nods and shakes of the head

in the midst of remarks which were unintelligible to her. She observed that following the issuance of sounds from the mouth of one person another would often be stirred to activity, and inferred that the sounds must have been intended for such effect. Some experiments by way of imitating the sounds were made, for instance she yapped out in the same tones a phrase uttered by sick Trixie, but the results were disconcerting, and she vageuely felt that the experiment was not successful.

On the third evening Margaret began to take a hand, as subliminal teacher. When the lips began to utter a series of sounds Sick Doris knew that SHE was not responsible, and when the hands began to do things and the fingers to point, she felt that it was not HER work. Nor was there any especial surprise, for during the two previous days Margaret had occasionally made the lips speak or the hands perform an act in case of emergency. Margaret made but little headway in her new vocation as pedagogue at first, since Sick Doris knew no language. But she soon hit upon the scientific way. "All the way I could get her to understand," said Margaret long afterward, "was by doing things. She would say things over after me and do what I did." And as soon as Margaret by the double process of pointing and pronouncing the name of an object, performing an act and naming it, built up in the mind of Sick Doris a small vocabulary, the process of education became rapid. It generally is, in such cases, scores of times faster than is the education of an infant. Night after night Margaret continued to labor, a stern and contemptuous preceptor. In a week's time Sick Doris was fairly competent to get along, though she had many difficulties yet to meet. Nor did she ever become physically complete or symmetrical, since to the end she was lacking on the side of the affections, though morbidly the slave of duty, and lacking in humor, in conceptions of the abstract, and other respects.

THE FOUR PERSONALITIES

Real Doris from the night following the mother's death had no conscious existence for two months. The mentally-

crippled Sick Doris mechanically continued what Margaret instructed her to do, and Margaret knew of nothing but to continue what Real Doris had been doing. So the old routine, working away during the day, house-keeping mornings and evenings, went on. Real Doris, when she began to come again, put in very brief appearances, usually of not more than five minutes. There was a subsequent period of three months during which she did not "come out" once, and the sum of all her appearances for five years could not have equaled three days. Fortunately, all the secondary personalities were favorably inclined to her, and tried by every means to increase the number and length of her emergences.

Overwork, together with the baleful influences of the home, chiefly militated against the primary personality. Margaret knew that something must be done, and dinned it into the mind of Sick Doris that she must earn more money, by working at night. Sick Doris learned the lesson all too well. As Margaret afterwards ruefully expressed it, "She began to work like fury, and—and then she made ME work." By a process of abstraction, Sick Doris, particularly while sewing, could gradually enchain the will and entire consciousness of Margaret, so that both consciousnesses coöperated, intent upon the task. Everything but the needle and stitches faded away, the eyes never wandered from the work, color fled from the countenance, the fingers flew with magic speed, and hours passed before the spell was broken. An instance will later be given of the definitely proved execution of an elaborate piece of embroidery in less than a quarter of the time that the most conservative judges estimated as necessary. In this instance the abnormal work went on more than twelve hours at a time absolutely without rest except such as was furnished by seizures of catalepsy, when the needle paused midway in the air, the body immobile and the eyes fixed, for ten minutes or more, whereon the arrested movement was completed and the task went on, Sick Doris not being aware that she had paused more than a second. When the task was ended Margaret would come out and dance a wild dance of joy.

Thus nearly all the life was divided between Sick Doris and Margaret. The former was on the whole the dominant character for five years, though Margaret often got the upper hand and asserted herself as temporary tyrant. Real Doris made her little pathetic appearances, for five or ten minutes at a time, sometimes for several consecutive days, oftener at longer intervals. Sleeping Margaret still talked when Margaret was asleep, the latter still under the illusion that she was listening to her own voice. Still that profounder consciousness carried on her guarding function, and brought a psychic force to bear, mainly upon Margaret, in cases of danger or other urgent need.

THE THIRD DISSOCIATING SHOCK AND THE ADVENT OF THE SLEEPING REAL DORIS

Toward the latter part of September, 1907, Margaret, startled as she was going up a flight of steps, fell, striking the head violently against an earthen crock. I will leave it to the physiologist to say if a group of neurons was thrown out of functional alignment by the shock; certainly, as Margaret afterwards expressed it, "A little crack was made in Real Doris." The following night began the interesting verbal performances which in later days were shown to belong to a true though incompletely developed personality, Sleeping Real Doris. Thereafter, whenever in the dead of night Real Doris would float briefly to the surface, she would be followed by this fifth and last member of the group. According to Sleeping Margaret, a second fall about a year after the first, seemed to strengthen Sleeping Real Doris, particularly making her voice stronger.

DISCOVERY OF MARGARET

The first extended observation of a long series of somnambulic alternations was entered upon, and I noted, now the spiteful voice uttering threats, with hands endeavoring to injure the body, now the wary, harassed expression and half-awakened murmurs, now the ecstatic smile, hands reaching out and tender pleading, "Mother, don't leave me," and now the kaleidoscopic and correspondent changes of voice, facial expression and manner as one side of con-

versations apparently dating from childhood to that very day were rehearsed, and now the shrinking form and pathetic appeals, "Daddy, don't hit me." Impressed that the somnambulic phenomena were worth noting down and studying, on that very day I began the daily record which continued with hardly a break for three years and four months. Speedily it was discovered that in a certain state the sleeper could hear me and fluently converse. On Jan. 20th, somnambulic references to "that Doris" first suggested the suspicion that a secondary personality might be speaking, and the evening was not ended before the suspicion became a certainty.

Yet it was evident that the discovered personality (at first denominated X) did not intend to betray herself. Occasionally she would stop with puzzled expression to inquire, "Did YOU know that DORIS?" but as the conviction dawned upon her that at least a part of the secret was known she grew more and more frank. Moreover, it appeared that X asleep did not embrace the whole consciousness of X awake, since the former was plainly unable to recognize in her interlocutor the Dr. Prince whom the latter knew so well, and constantly spoke of the latter as a third person. Taking unwise advantage of this fact, I soon began, when X asleep threatened to hurt Doris, to tell her that Dr. Prince would punish her if she did so. This was all the more successful as a terrifying measure in that at that time Margaret awake stood in awe of me and "came out" as little as possible when I was present. Margaret asleep soon began to address her interlocutor as "He."

On Jan. 22 Margaret asleep told me that Doris called her by the name Bridget, and that she disliked the name. Feeling the need of some name for her I suggested several names, and at the mention of Margaret she accepted it with delight. Henceforth "X" was known as Margaret.

[THE FOLLOWING IS AN EXTRACT FROM THE DETAILED CHRONOLOGICAL RECORD]

Jan. 22, Sunday: This morning Doris reported that when she was asleep last night she tore at her side and made it bleed, and scratched her arms.

In the afternoon Margaret came over. She asserted that while asleep when Doris was "away" she, Margaret, could go to Dr. Prince and put her hand on his and he could not move his hand. "(Anything else?[2]) Yes. I could put my hand in front of his eyes and he would think he was going blind. (Well, you do that, and let Doris's hip alone)—here she scowled. "(Tease Dr. Prince. You would like to tease him?). Yes"—delightedly. "(Well, you may do that. Give him a jolt.) Don't his books tell him anything about that? (No, I guess not. But you must let Doris's hip alone.) No!"

In the evening she came in looking very jaded and miserable, and was evidently suffering. She said little, but it is nearly certain that Margaret had been punishing her for coming to the rectory in the afternoon in spite of the subliminal urgings to stay away, and that she dared not tell what she had gone through for fear of further torments. Presently she lay down and went to sleep. Margaret came, and clutched savagely at the left hip, and scratched the neck. I remonstrated in vain, and held her hands only to see them snatched away and the vicious movements repeated. Stern commands to desist had no effect but to increase the manifestations. Attempting suggestion I began to say impressively ("I am going to take away your power. You are growing weaker. You are losing your strength"). The struggles became weaker. Finally I said ("Your strength is gone. You are powerless"). All striving ceased, the face changed, and she (Sick Doris) awoke. She now appeared extremely languid and spoke with difficulty. Her vital forces seemed to be ebbing away, and she gradually passed into a condition which made Mrs. Prince and me think, not for the first time, that she was dying. Her pulse descended to 54, and became feeble. She

[2] Parentheses indicate Dr. Prince's replies.

seemed only half conscious, but occasionally looked wonderingly at the two who were sitting by her, affected by their impression that she was near her end. At length she murmured, "Am I dying? (I think so.) Don't you want me to go?" She smiled peacefully, as though glad both to go and to know that she was to be missed. She looked singularly unlike her afternoon self, the very shape of her face altered—it seemed thinner, as though she had passed through a period of sickness since. Under the spell of considerable emotion I was looking into her eyes, and presently her gaze fixed upon mine, and with parted lips she continued to look, not rigidly, but dreamily and peacefully, while we waited for the end which we thought so near. After some time it suddenly struck me that her gaze and features were unnaturally fixed. I stooped to examine her.

SLEEPING MARGARET TAKES COMMAND

Just then a voice issued from her lips, though no other feature moved: "You must get her out of this. She is in danger." It was as startling as lightning from the blue sky. Of course, I thought, it must be Margaret speaking, but there was a calm authority in her tone which was new. I shook the girl gently, her face did not change. "Shake her harder," the voice went on. "Hurry! Hurry!" It was evident that Doris was in a profound state of hypnosis, and I began vigorous measures to bring her out, with the result that her eyes rolled and her limbs moved. Shaking her and shouting in her ear brought her to a sitting position. "Walk her! Walk her!" said the voice. At first there was difficulty in carrying out this order, she stumbled and tended every moment to collapse upon the carpet. Directions occasionally continued to issue from the lips, directions which I supposed to be uttered by Margaret, suddenly most singularly endowed with wisdom and calmness, directions which I never thought of disregarding, they were delivered with such authority and characterized by such good sense. Finally we heard, "She is coming to herself now; she will be all right soon." No more directions were given, and almost at once the face showed more animation and intelligence. But it was soon evident that Margaret and

Doris (Sick Doris) were rapidly alternating. Facial expression, tones, utterances, all showed this, though for a time the utterances were only responsive to queries. At one moment to the question ("What is your name?") the answer would be given, "Doris," the next "Margaret"; now to the question ("How old are you?") the reply would be made, "Twenty-one," again, in other tones, would be heard, "Eighteen." The alternations averaged perhaps twice a minute for half or three-quarters of an hour, their duration getting longer as time went on. Her feet were first freed from the hypnotic spell, by the process of "walking her," but the use of her hands and arms remained for some time inhibited, probably because the suggestions of losing strength had been mainly employed against Margaret's malevolent exercise of them. Counter-suggestion at first had no effect. ("Raise your right hand.") She looked down at the hand, hanging limply at her side, and made an effort to obey, but failed. ("Raise it. You can do it.") She looked at it again, smiled, and said, "I can raise it. (Certainly you can. Why don't you?) I don't feel like it." After repeated suggestions, the arm went up, and she exclaimed, as if proud of the achievement, "See, I can do it." Her muscular powers were restored as by installments. Later Margaret became vicious again, and grasped the throat with both hands. Finally she fell into a state of lethargic slumber, and remained inert and speechless until nearly morning. At about five she (Sick Doris) woke, and crept feebly home to get her father's breakfast. Neither she nor Margaret ever evinced any recollection of the details of the hypnotic incident.

Jan. 23: Doris came over in the evening, and went to sleep at a little past eight. For over an hour she went through the movements of massage, rubbing her arms and neck, and making soft touches along the hip. (Comment by Sleeping Margaret, "Margaret treating Sick Doris.") Doris woke with bad pains. In her eyes was the old expression of staring wonder, surprised sadness. "Why did you call me? (I did not, I have not spoken for five minutes.) You must have called me. (No; don't you believe me?) Yes, but some one called me." Again she slept, and again

awoke, declaring she had been called. This occurred repeatedly. Earlier in the evening she said, "I never asked God but for one thing, and He doesn't give it to me. (What was that?) That I might go." Now I asked ("Have you ever prayed against the voices?") Instantly her body seemed to be racked by violent twinges of pain. She answered, "No. (Remember that Jesus helped people who had troubles. Perhaps if you pray the voices will leave.)" The wincing and writhing renewed during my words, and directly her eyes closed, her face underwent that strange transformation, and a sharp voice cried, "What made you tell Doris to pray? I don't want her to pray. (Why don't you want her to? Do you dread prayer?) Yes. (Can prayer weaken you?) Yes." Here I uttered a prayer aloud. At once the life went out of her hands, and they sank upon her breast. The head rolled over to one side, and her lips parted in quiet slumber. (Comment by Sleeping Margaret, "Margaret went away.") After a while I noticed that her neck and arms were stiff, rubbed them, and they relaxed. Twenty minutes of perfect quiet on her part passed, and then I directed her to wake peacefully. In about a minute her eyes quietly opened, and more swiftly than I had ever before seen, her lips wreathed in a sweet and tender smile. (Comment by Sleeping Margaret, "That was Real Doris. I remember that she came for just a moment, before Sick Doris spoke. That was the first time you saw Real Doris after you commenced to care for the case.") I ascertained that she (Sick Doris now) had little pain, and felt cheerful and refreshed.

[HERE THE ABRIDGED STORY OF THE CASE RESUMES]

This incident determined the permanent exclusion of hypnosis in the after-conduct of the case.

Not suspecting that the Doris whom I knew was not the primary personality, I told her facts about Margaret which she knew much better than I did, and started a series of efforts to strengthen her on her side while attempts were being made to subdue Margaret on the other.

SICK DORIS CUT LOOSE FROM VARIOUS ENTANGLEMENTS

The normal person may best conceive how a hysteric can both powerlessly cherish and act out a delusion and yet in a manner be conscious it is a delusion, by remembering how, in certain dreams, one both believes that it is real and has a haunting suspicion that it is not. It is certain that Sick Doris attempted to contrive so that Mrs. Prince should see the hip that was supposed to be eaten with tuberculosis, and yet the strange fantasy went on; likewise she insisted in putting in my care the books supposed to contain some of her marvelous pictures, so loosely tied with a twine string that it makes convincing her after-statement that she meant that I should examine and find them blank, and yet the waking dream automatically proceeded. Discovery of the fabrications shattered their power over her, and the most of the pains accompanying the tuberculosis delusion, so severe that she jerked, and sweat came out on her forehead even in her sleep, vanished immediately.

REVELATION OF REAL DORIS

The supreme proof of the winning of Margaret's confidence came on the 28th when she disclosed the central secret. "You never saw the REAL Doris, but very little—when it was ALL Doris," she said impressively, and went to sleep, adding, "I will wake Doris so that she will be ALL Doris for a little while!" And she did so, though I did not fully comprehend that the clear-eyed girl looking wonderingly about her was the primary personality, and as such quite another than Sick Doris.

REVOLUTION IN ENVIRONMENT AND RESULTING RAPID IMPROVEMENT

On the 2nd of March I wrung from the father a reluctant and entirely heartless consent for his daughter to live for a while with the family which she was destined never to leave. That night Sick Doris appeared at the rectory in a pitiful condition, and a night of mingled lamentation and fright followed. But the effects wore off quickly. The very next day Real Doris came for a few

moments, surprised and overjoyed to find herself transplanted. The next day Sick Doris and Margaret ceased to converse. Margaret would seek to talk with Sick Doris in the old ways, but Sick Doris no longer responded. Some tie between them had snapped, and Sick Doris, as Margaret often complained, could no longer hear her. On the 5th it was found that the fading memories of Sick Doris were beginning to emerge in the consciousness of Real Doris and within two days these were coming in such a flood as almost to overwhelm her. Usually she recovered the termination of an incident first, and it often caught her gasping with surprise and perplexity as it stood out isolated and unexplained. The whole incident developed by no regular process, but in a general direction backward. The memory of Sick Doris's acts came before that of her reasons for the acts, and the originally accompanying feelings often never showed up at all. States of extreme abstraction and emotion were never recovered. Sick Doris's delusions came to light slowly and imperfectly. It was months before the process of the absorption of memories was completed, during which the disappearance of the corresponding memories from the consciousness of Sick Doris was nearly contemporaneous. Much came back during sleep in the form of dreams, and the process of assimilation was smoother in that case.

On the 6th Real Doris emerged for by far the longest time since her mother's death. Soon thereafter it was not unusual for her to sum up several waking hours in a day. At first she was satisfied with what she got, and ecstatically pronounced it "like heaven," but the more her gains the more voraciously ambitious she grew to maintain herself, and the more she deplored "losing time." And this, of course, was as it should be. On the 9th, also, she was the one to sleep a considerable part of the night, which SHE had not done since she was three years old, and the very next night she reigned supreme and alone, and this became the rule, subject to many exceptions. Now the "Wake quietly, wake happily, wake in a minute" formula was transferred to her and began to be the process for bringing her by night or by day. A characteristic happy

smile on the sleeping countenance was the sign that she was near, and I ultimately learned to wait until it beamed brightly before using the formula, otherwise it might not be successful. It was found that she should be seen soundly asleep in her own personality, before leaving her, otherwise she failed to remain, but Sick Doris and Margaret spent the night between them. One day, while alone, Margaret struck the keys of the piano, and Real Doris came, and sang, for the first time for five years. On the 21st Real Doris was actually "out" more than ten hours awake. But she had been present but three minutes the preceding night. Even sleeping in her own personality meant increased expenditure of energy.

But from the 5th to the 10th Sick Doris was not seen, and Margaret thought that she was defunct. When she reappeared she was minus some of her memories. Again she was gone for six days, but on the 16th took up her old course of daily alternations. As Sleeping Margaret afterwards said, she HAD to come—the burden of the changes was too great for Real Doris and Margaret to divide between them.

THE DECLINING SICK DORIS

By the 16th of March, the bodily anæsthesias of Sick Doris had greatly deepened. With the ebbing of her memory her manner changed, becoming more cold and abstracted. She was allowed to help about the house, but sewing of all kinds was denied her, since its tendency to bring on catalepsy was observed. But sewing was a part of HER, and no measure more powerfully operated to push her toward the brink of extinction than this. By the 27th taste and smell were practically annihilated.

On March 31st, Sick Doris accompanied Mrs. Prince and myself to a church in another part of the city. This was her last journey, so rapid was her declension after the change of environment, and the adoption of restrictive measures.

MARGARET ALSO DECLINING, BUT MORE SLOWLY

On the 21st of March, Margaret declared that she could no longer voluntarily bring Real Doris, but must first sleep in order to hasten the coming of the latter. On the 24th, it was recorded that she was beginning to have intervals of not being conscious of Real Doris's thoughts when the latter was supraliminal and awake. That is, she was "away and sleeping." This was new in reference to Real Doris, though Margaret had previously at times been in that subliminal condition when Sick Doris was on deck.

THE BATTLE WITH SICK DORIS AND HER RETREAT

The memories of Sick Doris ebbed daily. On the 6th of April she had no recollection of the rooms in the old home or the way thither; by the 8th she seldom remembered anything of the previous day, two days later she did not know who I was and began to call me "Mister." With the fading of memory she daily grew more childish and apathetic. She began to make pathetic appeals while being banished, saying, "I never did anything to you, Mister," and even to attempt touching cajolery, patting my cheek and declaring, "We don't want to go home. We LIKE this place. We LIKE you, Mister." By the 20th she had only a few fixed ideas, all in relation to her old home, her housework there, and buying provisions for dinner. On the 21st she had forgotten how to read and even her own name.

INFANT SICK DORIS

From the 6th of May it was observed that the visual angle of Sick Doris was narrowing, and directly afterwards her visual field began to shorten. By the middle of the month she could see but 14 inches away. My voice won only the response, "Noise! Noise!" as her eyes wandered about bewildered. She could not walk, stand or sit, and when raised from the couch her head fell with a snap and hung whichever way gravity carried it, while all movements of her hands were automatic. If her hand crossed her line of vision she asked "Waz zat?" as she did

when any other foreign object intruded. Thus she continued until her end, the only essential alteration being that she came less and less frequently.

First on June 18th, I was witness of another singular phenomenon, that of Sleeping Margaret's "jolting" Margaret. That is, when Margaret asleep was refractory Sleeping Margaret would sometimes cause her to experience the hallucination of receiving a blow on the forehead. Margaret always thought that I was responsible, and would shrink from me in fright.

THE VICISSITUDES OF MARGARET

Careful engineering was gradually ameliorating Margaret's disposition. Yet occasionally she continued to have what were known as "tantrums." On June 2nd she experienced one so serious that she began to tear her clothing and, unable to wreak vengeance on Sick Doris, to threaten Real Doris for the first time. Once she addressed infant Sick Doris mournfully, "Gee! It's no use to scratch you. If I did scratch you all you'd say is, 'Waz zat?'" Following a tantrum no memory of it survived.

When asleep, the most fleeting touch of her hypersensitive fingers sufficed to tell her what my facial expression was and elicited chuckles or cries of dismay to correspond. More extraordinary, if not inexplicable, while asleep she had only to touch my lips with her fingers to know what I said, even though I only shaped the words rapidly, without conscious emission of the slightest breath. This power continued to her final exit, and she never showed consciousness while awake of having exercised it.

The policy henceforth pursued was to keep Margaret asleep so much of her time as was possible, and to narrow the range of her activities and pleasures all that could be done and preserve her good-nature.

Margaret still, in general, resolutely insisted on her property rights, and if Real Doris rashly laid hand on one of her dolls, opened the drawer in which the most of her knick-knacks were kept, or tossed away some supposedly worthless article like an empty "perfoonery" bottle

which Margaret valued, she would be "stirred up" and come out with protestations and even threats.

SLEEPING MARGARET "YANKS IN" MARGARET

On Oct 8th, while Real Doris was in church, Margaret came out and was about to shout, according to her custom at home, "Oh, you papo!" when Sleeping Margaret made a great effort and sent her into the subliminal depths, forcing the return of Real Doris. When Margaret was next seen in the house, her eyes were bulging with excitement as she declared, "There is another Sick Doris. There must be, for I was yanked in just as I used to yank in Sick Doris. You can't fool this chicken; there's some one else." Again on Nov. 12th, in a similar emergency, Sleeping Margaret "pulled Margaret in," as the former termed it, but declared that it required so much expenditure of energy that she did not want to repeat the feat, and that I must keep Real Doris away from the church until the danger was over. The drain of force on both occasions was shown by the subsequent fatigue of Real Doris and by an increased number of alternations.

MARGARET BECOMES MENTALLY LESS THAN SIX YEARS OLD AND REACHES BLINDNESS

With the exception of one month, to be noted in a separate section, Margaret's retreat continued throughout this period of a year and four months. Her recession to earlier mental childhood was manifest. By September, 1912, such expressions as "I've been bitteded by a bug" were frequent, and such pronunciations as "hankchet" for handkerchief, "breket" for breakfast, and "leamun" for liniment, appeared. In November a German accent began to emerge, "vot" for what, "vell" for well, and a curious pronunciation of dog like "doch," with the true German guttural sound. This had peculiar interest from the fact that in her sixth year the girl picked up some traces of accent from frequenting, out of her love of horses, a nearby stable where German hostlers were employed. She had not previously acquired it from her father, since she fled

from his approach, and she laid it aside soon after entering school in her seventh year. I once heard her utter the Teutonic expression, "Did you make the light out?"

Even the memories of early years were now departing. In September it was found that the name F—— was foreign to her, the next month she remembered neither her father nor her beloved mother, nor Ella, nor scarcely a person or thing connected with her former life. The general dulling of her comprehension, of course, kept pace with the loss of her memories. Margaret's general interest in life diminished in proportion. Her anæsthesia and failing vision were isolating her from the present world and her amnesia from the past. Vision, which had narrowed as we have seen, began also to shorten. As with other changes, this did not trouble her spirits, more than John Robinson is troubled because he cannot fly.

By September, 1913, she had become anxious to do whatever Real Doris desired she should do. If Real Doris wished that "Phase A" would not throw things about the floor, Margaret would at once begin to be religiously careful, declaring with all earnestness, "Margaret don't want to make the Real Doris trouble. Margaret don't want the Real Doris to think that Margaret's sloppy." But it must be a spontaneous wish on the part of Real Doris, one suggested to her by another as suitable for her to put in operation would not do.

Since Sick Doris had left a testamentary document, Margaret thought it proper that she should make her will also. After several experimental drafts, she at last wrote it out in gigantic characters, leaving grave and reverend doctors as well as the mother and papo, her dolls, child books and odd little knick-knacks. Several codicils were added, but these were dictated when Margaret was past writing. After her decease my duties as administrator of the estate were faithfully carried out. According to the provisions of the will, a number of articles are being preserved for presentation to "another Margaret," if I ever should find a person with one.

Of course, Real Doris's individual progress was keeping pace with Margaret's declension. Bridging the morn-

ing chasm, she often was staying in control for 22 or even more than 24 hours at a stretch.

FROM MARGARET'S BLINDNESS TO HER DEATH

As already stated, Margaret remained blind until the close of her career. But about Nov. 30th, 1913, a phenomenon related to the eyes began which curiously illustrated the physical effects of a relaxation of psychical control. So long as Real Doris was on deck, she could read or sew in a bright light with perfect impunity. But within a minute after Margaret came, exactly the same location in respect to artificial light would cause her eyes to sting and water, and soon two slender streams of water would be flowing down her cheeks. She did not know what the matter was, but placing a screen between her and the light relieved the difficulty, and this precaution was henceforth taken. Any oversight was attended by the same result, and the more as the months went on. A doctor was called in, Dec. 20th, to see Doris's eyes, which were badly inflamed, and he diagnosed the difficulty as due to eye-strain. Real Doris had done nothing to strain her eyes, and increased care in regard to Margaret soon brought relief. By January, Margaret was sometimes blundering and injuring herself while pursuing a familiar route through the rooms, but this was due to failing mental alertness. In the meantime her ability to detect my facial expressions remained intact, and continued to do so. Sometimes I would make a face, and instantly she would cry, "Don't make snoots at your Margaret when your Margaret can't see."

REAL DORIS

The very day that Margaret became blind Real Doris, ignorant of that fact, reported with surprise that she could see more clearly and farther than ever before in her life. After a number of resolves and futile attempts Real Doris first succeeded in maintaining herself through a day and succeeding night. After two repetitions of this feat, another advance upon the enemy was made by staying from the evening of Feb. 22nd to that of the 25th, a period of 70 h. 50 m. She was still failing to bridge the evening gap

in a majority of cases when, beginning with 11 P.M. of April 8th, she accomplished the mighty achievement of 8 days, lacking 55 minutes.

On April 19th, owing to Margaret's departure, Real Doris, after 22 years of exchanging personalities, again stood on the firm ground of mental integrity, and since then has had not one moment's interruption of a clear and continuous consciousness.

* * *

Real Doris has continued to improve in physical health and mental tone. The physiologist would pronounce her bodily condition excellent, and the psychologist, uninformed about Sleeping Margaret, would observe no indications of mental abnormality. It could occur to neither that less than five years ago she was the subject of a condition strange and deplorable in the extreme, the climax of nineteen years of psychical dissociation.[3]

[3] I made the acquaintance of "Doris" in 1923. I should agree entirely with Dr. Prince as to the absence of any sort of indication of abnormality.—G. M.

THE ORIGIN OF ABNORMAL TRENDS IN CHILDHOOD

THE FORMATION OF LIFE PATTERNS[1]

BY DR. LESLIE B. HOHMAN

By the term "life patterns" I mean to suggest that life tends to repeat the same story over and over again. It is like a symphony or a sonata—the same theme repeatedly recurs, each time to be developed a little differently; and then come combinations with other primary themes and with secondary themes. When one hears the final product one is aware only of music—beautiful or discordant, major or minor, sad or cheerful, triumphant or hopeless—the sum total of a composition. The musician can analyze this for us—can single out the various themes, primary and secondary, can separate the harmonies and tell us how they are put together to give the results that we hear. He shows us that music has a pattern or a series of patterns, which are made up of harmonies and melodies and themes and counterasserting themes, and that unless they are put together properly the result will be poor music.

Now the psychiatrist and psychologist are busy in the same way in studying the main themes, the secondary themes, the dominant pitch and keys, the harmonies, and the dissonances of life experience and situation. I chose music as an analogue because it and life have, in addition to the mechanical patterns, patterns that are also inspirational and creative.

When we study life and music we discover that their totality and beauty are built upon patterns that are relatively simple; that the putting together of these patterns is an important business; that the final result is good only in so far as the original themes are good and the manipulation of them is satisfactory.

[1] Reprinted from *Mental Hygiene,* vol. xi, by courtesy of the author and the National Committee for Mental Hygiene.

The simplest patterns are those with which the child is born. These are the patterns that are released as soon as the child is placed for the first time in an environment that calls out such a response and they are patterns or responses that need no training to elicit them.

The infant cries at birth, and its crying varies in expression, depending upon whether it has been long without food, whether it is restricted in its movements, whether it was suddenly left unsupported in its position, or whether it has heard loud noises. These are the only circumstances, so far as we know, that will elicit crying in the early days of infancy. The crying may be stopped by feeding the child or petting it. If we wish to translate these simplest responses into the terms of adult psychology (I am not sure that it is wise to do so), we can say that the child, without being taught, cries in pain from hunger; it cries with rage when its movements are restricted; it is fearful when its support is released or when it hears a loud sound. On the other hand, it is satisfied when it is fed and its pain stopped, and its rage or fear can be stopped by petting or fondling.

These simple patterns are the child's native endowment and are the thematic units with which you will have to begin your composition—unhappiness with hunger, fear when support is suddenly released or when there are loud noises, and rage when the child is restricted in its movements. It can be made comfortable and happy by feeding or fondling. What is built up out of these elementary emotions of discomfort, rage, fear and happiness will depend upon how you manipulate the environment. You will find that these principles of environmental manipulation are also simple, but that they require consistency and knowledge of the end to be accomplished. The principles of environmental manipulation are dependent upon the ready capacity of the infant to learn with amazing facility and the teaching of appropriate habits. This is an anthropomorphic way of saying that these simple responses, these unconditioned responses, may and will be rapidly conditioned by the environment in which the child lives. Whether pain responses and fear responses are frequently or infrequently called

out will depend in the first place upon how often you present the cause for them, and, in the second, upon how often you allow these responses to be followed by positive satisfaction—giving stimuli—food or petting. If you feed or pet the child every time it cries in hunger, anger or fear, it will frequently become fretful or crying or fearful. This is a commonplace of infant training to-day. Remember, however, that it has become known only within the last few years as a scientific principle and that the untrained mother does not know it. It is a principle that has to be learned by parents.

The second principle that must be remembered is that casual, unrelated things in the environment soon come to have the same stimulus value (that is, can arouse one of these activity-emotional responses) just as easily as the primary or original emotion-arousing experience. For example, loud noise arouses fear; dogs that make loud noises come to elicit fear because they make noise; the fur of dogs arouses fear because it is presented to the child with noise. One can experimentally arouse the same fear of any animal, or even the child's blocks will do it if you present them with loud noise. It is the business of the parent to understand that these new conditionings are not just whimsical, inevitable things, but that the laws governing them can be readily worked out and that when chance establishes a wrong or undesirable conditioning, it must be deliberately controlled and broken up.

Now just as fear may be aroused by casual things in the environment by being presented with loud noises or at the same time that support is suddenly released, with the result that a pattern of ready fear responses can be built up, just so this pattern can be torn down and destroyed by substituting pleasure-arousing stimuli for those that cause fear.

The two-year-old son of one of my friends recently became quite frightened while watching some goldfish at the time of a thunderstorm. He became so fearful of the goldfish that he did not like to play on the sun porch where these fish lived. To break down this fear pattern, the child was fed in the sun parlor and at each meal the fish bowl

was moved nearer and nearer to his table. Finally the fish were put in a dish beside his food and he was persuaded to touch the fish. The original conditioning of fear by the noise of thunder was broken down and a positive one of satisfaction was substituted through the food stimulus. This is an experimentally broken conditioning, but the everyday living of the child constantly presents situations that build up new conditionings and tear down old ones. It is important to realize that this breaking up of conditionings or undesirable patterns can be done with either desirable or undesirable methods. My friend could have offered a stick of candy, or the child's mother could have fondled him, but in both cases these substitutions would have been building up only another undesirable pattern—*i.e.*, crying from fear would readily become a condition of getting candy or petting. The destruction of fear by the use of the normal, natural feeding habits does not store up further trouble, but relegates goldfish once more to their right rôle of a casual bit of the environment.

As a broad principle it can be said that the general tendency of the organism is to avoid unpleasant stimuli and to get comfortable again as soon as possible. If the child is allowed to meet the unpleasant stimulus either by avoidance reactions—*i.e.*, either by running away or ignoring the fear-arousing stimulus, or by substituting unwholesome pleasure-producing stimuli, then more and more casual stimuli come to be connected with the original unpleasant or disagreeable stimulus and an undesirable or bad pattern is established.

A little friend of mine, a year and a half old, cries whenever he hurts himself, and his mother picks him up and says, "Poor hurt!" He finds that hurts after all are not so bad, because they are invariably followed by cooing and fondling. His process of disentangling himself from the things about him has not developed far enough for him to distinguish between the hurt and what causes it, so he avoids both the hurts and the things that cause them, and the chair or the table have become big hurts. A great many casual things take on the significance of "hurt," and, let it be emphasized, fondling. His parents are delighted with

this avoidance reaction of things that might bring danger to the child; he gets much fond attention from visitors who think it a cunning trick; but the fact that a crippling fear pattern, conditioned by the most casual things, is being allowed to develop enters nobody's head.

It is self-evident that the more the pattern is builded upon the prime, simple, unconditioned responses—or shall we say instinctive responses?—the easier will it be to fix and crystallize it. During these early years of the child's life, the environmental forces working on the child, in the form of its parents' or nurse's attitudes, are apt to be purely emotionally directed. The lovableness of the child, its cunning tricks, its smiling, its pitiful helplessness, its tearfulness or pain, all call forth from those surrounding it emotional attitudes, which, by their very nature, are not thought out or intellectually controlled. One feels grand emotions of love or sympathy or joy or delight, but they are apt to be uncritical and to be ruled by desire and feeling. The parent is not checking his or her behavior toward the infant. As a result of this uncritical attitude toward the child, who is too tiny to understand or to be understood, the parents and nurses constantly bring the same attitudes over and over again as environment to the child, and this tends to fix the child's responses in definite patterns. What the uncritical emotional attitudes are doing to the child cannot come under control unless the parent translates the emotional attitude into a thought-out plan—a plan directed toward or against special patterns to be established.

As soon as language begins to develop the problem takes a somewhat new turn. These emotional attitudes are necessarily modified, because the parents can no longer excuse themselves with the feeling that the infant is too young to understand. For the infant, up to the time it begins to talk, its only mode of expression has been large body movements and elementary, undifferentiated emotional responses. But gradually this tendency to act out each response or desire (by desire I mean reaction or response to inner physiologic stimuli) by all of the body is replaced by smaller movements of parts of the body and by more

refined and at the same time more complex and complicated emotional combinations. This replacement of total activity by part activity, and the substitution of word symbols for part activity, simplifies and at the same time complicates life for the child. Experience gets split into pieces and old total patterns are no longer serviceable. As a result of the processes of natural growth and development, new natural or unconditioned patterns are unfolding themselves, and these patterns have to do with the part activities and more complex emotional responses. The child begins to imitate, to distinguish between itself and the outside world, to be better able to direct the finer movements of its body, and so forth. Old conditionings fall into disuse or must be replaced by new ones, to meet these new impulses and reactions. New secondary themes are calling for expression and old primary themes must temporarily yield. If the way is closed by the fixity of bad habits built on the primary themes, development is delayed or thwarted or permanently side-tracked.

Language which substitutes symbols for things and their doing, greatly facilitates this process of differentiation which comes from natural growth and development, but its appearance gives rise to a serious difficulty. It opens one door, but tends to shut another. It opens the door of learning about things, their names, of getting things more rapidly through asking for them, and of getting praise for talking. Suddenly the interest of parent and child is directed toward intelligence development and all energy is apt to go toward language and intelligence patterns. The rest of the activity of the child is apt to remain undirected and uncared for. Just so long as the child does not become a problem of discipline, little attention is directed toward what it learns to do with its hands or body, what manipulative pattern it develops in its play, or what emotional patterns it learns to use. Just so long as it does not interfere with the environment too much—or, if it does, just so that it gratifies the affection cravings of the parents—little is done to analyze the growth of manipulative or emotion patterns, and less is done toward their direction. Chance plays the chief rôle in this direction—or at least we

call it chance. If the patterns prove to be wrong and resemble the patterns of the parents, we call it heredity. The parent feels sorry and sentimentally unhappy because the child is like itself—or if the pattern is very wrong the parent feels that the child is just like its other parent.

The great difficulty is that in the growth of speech, emotional and manipulative patterns are not worked at with the same diligence and care that goes into intelligence training. The toys that are available for children to-day are a very good example of this point. You find a million variations of the same toy, but there is almost only one universal toy principle—they merely represent things in the world of grown-ups, and give the child momentary pleasure stimuli, but the child does not learn to do things with them because there is nothing to be done with them. If one tries to find a toy that the child will have to manipulate to get any satisfaction, one searches almost in vain. We can give the child pleasure only by buying more of the same things. I recently went into a nursery that looked more like a toy shop than a play room. I saw cows and horses and dolls very nearly my own size, farmyards, doll houses, cooking utensils, stoves and automobiles—in fact, a model of everything I own; but the child was unmoved by this array of miniature representations. He had nothing with which he had been taught to do anything that gave satisfaction for more than one minute. I had to invent a game and then we began to use these dull things. It was the playing at doing that gave satisfaction.

The kindergarten movement has been a recognition of the fact that children learn to do things all too late, and that the process of systematic learning to use the hands can be started much earlier than was thought, and can be developed to a much higher point than we have been anywhere near willing to admit. Parents are apt to block their children in this learning to do things with their hands, because they think of manipulative activities as largely inherited. It is true that it comes to the same thing as inheritance because the father teaches his son only the things he knows how to do and is interested in. If the child accidentally discovers during his play that certain things win

the approval of parents, then he continues on this line. A young architect is certain that his son has no capacity for manual arts, but is a potential architect because he ignores tools and works beside his father for hours with pencil and paper. It doesn't occur to the architect that if he himself were busy with tools the child would be just as pleased to hammer and saw. The main condition that the son requires is that he be allowed to work next to his father. The child next door is busy beside his father's work bench, but is dull at drawing. Each father is flattered that his son "inherited" such desirable traits. The fact that both children are being one-sidedly trained cannot come into consideration because their fathers are spreading their tail feathers and giving praise for this one-sided development.

It is, however, the emotional and inspirational patterns that suffer from the most flagrant neglect and these are the patterns that make or unmake the life of the child, and the future adult. The principle of the avoidance of unpleasant stimuli and the seeking of pleasant stimuli gives a direction to the course of life events. This is merely to say that the attempt to get satisfaction will dominate the urge and desire of the child. The direction can be changed almost at will, but the specific direction will always be the resultant of these two forces. The ease with which these two forces can be shifted is amazing. The dog can be made to give pleasure responses to actual painful stimuli—just as some adults come to enjoy giving unhappiness to others and being made to suffer; and conversely, rage responses or the arousal of fear can come from the most beneficial stimuli. I know a little girl who responds quite automatically to any move on the part of the parents, even when it is for the purpose of doing what the child wants, with a rage-driven petulance. Putting on her coat so that she can go to the park, washing her hands so that she may eat candy, putting her on her chair to read her favorite book, all call forth shrieking. She has had fixed for her this primary pattern of rage, built on her instinctive avoidance of movement restriction, and she has been so securely

conditioned that she cannot be released. She now responds with rage to the very things she wants. . . .

We are apt to think of disposition or character as a fixed quantity and to regard the child as naturally irritable or naturally sullen, or willful, or cheerful, or daydreaming, or temperish, or affectionate. So great is this tendency to think of these modes of emotional responses as fixed that each of them is attributed to one of the child's parents or grandparents. This method of releasing oneself from responsibility is comfortable if one thinks of these emotional patterns as born in the child, but this is an unction that will soon be denied your souls, and you will have to face frankly the fact that even if the patterns are inherited they can still be modified and changed almost at will.

This attitude as to the training of emotional patterns is not a question of conviction, but one of experimentally proved fact. Let me give you examples of what I mean: I know a lad of three and a half, with a very calm, placid and cheerful mother. She has so great a calm under trying circumstances that she comes under the suspicion of being callous or unfeeling, or at least phlegmatic. The father of the child, on the other hand, is very irritable, sullen when not depressed, and constantly resentful against life and his environment. He, in turn, is just like his own mother. During the first months of the child's life the mother followed absolutely the advice of her physicians. The child was picked up only for feeding, bathing and dressing. Her fondness for the baby did not tempt her to pet and fondle him constantly; she humorously remarked that she liked it, but she wasn't sure the baby necessarily would. He slept perfectly, gained weight as per schedule, showed healthy repose and cried not at all. The necessary manipulations brought no tears after a short time, because they netted him no results. The father, on the other hand, although disliking any of the responsibility of the child, was quite willing to disturb him in the middle of his sleep to show him off to strangers.

Through illness the father was removed from the situation and the training was left entirely to the mother. The child was allowed his own head as long as his activity did

not interfere with his own welfare; whether he interfered with or pleased the mother was not the prime consideration. Necessary modifications of his behavior were handled in a completely dispassionate manner and decisions were irrevocable. At his third year he was turned over to his grandmother. Within a week he had two modes of emotional response, one for his mother and one for his grandmother. With his grandmother he wheedled, and then cried, to get what he wanted—but he always got it. His father's mother's whims and moods were puzzling to him, but he soon came to ignore them and her discipline. At the same time, when his mother requested or directed, he immediately responded. He vastly preferred his mother to his grandmother, even though he got his own way with his grandmother. He was learning personal control and adjustment without unhappiness from his mother; he developed indirection and inferior patterns of avoidance through contact with whimsical sullenness and indirection in the grandmother. With a mixture of fear and glee he reported to his mother that his grandmother had broken three glasses. His mother said, "All right." "And it doesn't make any difference?" he asked. To which his mother answered, "No." The child had learned another lesson in calm depersonalization of the inevitable. His mother clearly realizes that a danger lies in a too calm acceptance of the world; she has been urged not to overstress this in the child because she has the quality developed to an undesirable point.

Another lad of three and a half had a mother who had been petted and spoiled by her own mother, but was denied petting and spoiling by her husband. In her revolt against this in the first years of marriage she made her child pay the price of her affection deprivation. She kept him with her constantly and gave him the fondling she was denied. When the father protested she merely felt that it was more cruelty, and attached the child the closer. He came to be so dependent that nothing gave him any satisfaction that was not done at the end of her apron strings. When any attempt was made to get him to do things by himself there were tears and unhappiness. This became so marked

that the mother suddenly became alarmed and agreed to follow the father's advice. The child was to be alone for one hour each day. For the first twelve days this plan resulted in an hour of weeping or raging. But finally, on the thirteenth day, came calm and a turning to toys without further ado. When the primitive patterns of tears and rage proved no longer a serviceable method, the child substituted what was at hand. To-day he is alone or with other children most of the day, but the original pattern of tearfulness has to be handled in summary fashion to prevent it from becoming fixed again.

This tendency to react with tearfulness and depression after the deprivation of satisfaction is a dangerous one and tends to become more and more easy to set off. The development of the learning business is never stationary. All forces that do not break down habits tend to fix them. Habits are more and more readily released. That is what we mean by habit—it no longer requires a stimulus of as great force to release the behavior pattern the tenth or one-hundredth time. The oftener the pattern is repeated the more readily it is set off. There is a tremendous danger that moods of unhappiness in the child will be sentimentalized by parents, especially if they have this mode of response in themselves. For the average person no explanation is required for depression. He accepts it as inevitable and takes no responsibility for it. It is true that once the pattern of the easy arousal of unhappiness is established, circumstances will arouse depression quite automatically and the duration of the mood is apt to be fixed. But neither the automaticity nor the duration of this depressive pattern is a fixed and crystallized pattern in the child. The parent takes it for granted that for the child depression has the same meaning as it has for himself; whereas the child is only using a modification of the original simple patterns connected with hunger and loud noises and loss of support. Break up these patterns by making the child pay a bigger price than he has paid. If he is tearful and unhappy, let him go to his room, where he can get none of the satisfaction of seeing the environment unhappy with him. Do not let depression and tearfulness be a signal for

cajoling and petting. Make your disapproval last beyond the period of his unhappiness, so that the child will learn to avoid the situations that will lead to unhappiness; but do not allow your own emotional reaction to get mixed up with his. A wise parent, with consistent good humor and cheerfulness, can almost always substitute smiling and good-humored reactions at the first sign of unhappiness, so that the depressive pattern never becomes conditioned in the child at all. Parents are all too prone, however, to make no effort to summon cheerfulness when they do not actually feel it. The parent should behave toward the child not as he is, but as he should be. Irritability and depression may be part of the adult's equipment, but he has no right to make them part of the child's.

One of the most frequent causes of the development of emotional maladaptations in the child is that parents are so involved with their own difficulties that all the direction of the child goes into avoidance only of the things and situations that have caused them—the parents—unhappiness and pain. Where they have been rigidly and perhaps tyrannically controlled, they give too much laxity and freedom to their children. The father who was ruled with the rod resolves that his child shall never be whipped under any circumstances. The parent who has suffered much unhappiness tries to spare the child all unhappy experience and to guard it against even necessary pain—the pain that is requisite if the child is to learn how to handle pain. The child may be so protected through the desire of parents to give it the things that they did not get in youth that it has no chance to learn the mechanism of combating immediate desire, and, on the other hand, to develop patterns to guard itself against disappointment. With the process of spoiling there comes a period inevitably when discipline must be impressed, and then the child has only its primitive patterns to use—rage or the unhappiness of tears. The indulgent parent is apt to yield before these things because he has been trying to save the child from these very reactions; then depression or rage accomplishes its purpose and the child is caught in a vicious circle of

constant desire with impotent rage or depression and unhappiness over necessary deprivation.

There is another pattern to which I wish to direct attention and that is the tendency to allow satisfaction to come to the child through uncontrolled imagination which does not go into some form of concrete activity. The play of the child affords the normal mechanism of release for this imaginative activity, provided it is taught and trained to turn to things and independent pursuits and is given sufficient emotional freedom from its parents to be able to turn to these activities. If it does not know how to use its hands to do things, if it has no technique for playing with other children, if it is refused outlet by too rigid insistence upon decorum, then the danger will be that the child will use its imagination for daydreaming and building air castles, and will begin to live in a world of its own creation. Reality will have no chance to check fantasy because the child will have no technique for dealing with it; satisfaction will come out of self-aroused fantasy and translate itself into a dangerous kind of inactivity and rumination.

The play with other children, which can be turned to such excellent purpose through extraverting the child, can take place only if the child is emotionally free to like other children. If all the affection responses have been tied up to the mother or nurse it is not free to like other children and accept the give and take that comes with normal human contact. The over-fond mother is apt to do everything for her child and to make things come true for him or pretend that they will come true. When concrete situations confront him he will turn to the mother for help and what at first was done with the mother's aid—that is, pretending that the things he wants will come true—will be done by the child alone. He will imagine that they are true. This pattern may result in paralyzing inactivity or in even more dangerous maladjustments when it comes to handling sex and adult-affection problems. You cannot save your child from life by pretending that it does not exist. If you let him live long in an imaginary world, when he meets the real world he will have to withdraw

into more fantasy or be miserable and unhappy. The breaking of this type of pattern has its solution in the substitution or forcing of concrete manipulative activity and an insistence upon turning feelings and fantasy into concrete thinking and words. Find out what the fantasy life of your children is; see to it that there is an adequate amount of balancing concrete play; force the child to put its wishes and daydreams into words, so that they can be measured against your standard of reality and the reality of the world in which he is going to live. Do not let him put you off; tabooed subjects are easily disposed of by "I don't know"; but the child has his own ruminations about them and your only hope of safely directing these ruminations is to keep them open and out in the world of concrete facts. Do not behave like an ostrich and refuse to believe in this fantasy-ruminating tendency of the child because he denies that it exists. It is always there and may be developing in dangerous ways before you realize. Make him use imaginative activity as a guide to more concrete activity. Try to limit fantasy by the possibility of its accomplishment. Let him pretend only so far as he can carry pretense into play, and play with other children. Use fantasy to give him an idea of future pleasure, so that he may learn to put off the desire of the moment for the accomplishment of greater happiness at a future date. He will then learn that there are long-run satisfactions in life as well as immediate satisfactions—that the rejection of the immediate is a condition of future happiness. His imaginative rumination is then being used as a method of discounting the present temporary dissatisfaction. This is the way to form ideals about life and experience. *You* again must make him learn that there is a to-morrow and that only by control to-day can the to-morrow be made satisfactory. Do not be driven by the present-day misconception that your child must know just what you are and all of your mistakes, and that control—or as you glibly call it, repression—is dangerous. Let him keep as ideal what you would like to have been and do not be afraid to teach him self-imposed discipline. Life can be lived satisfactorily only through self-imposed restrictions.

MENTAL HEALTH IN CHILDHOOD[1]

BY DR. MARION E. KENWORTHY

. . . As our understanding of these problems of mental maladjustment progresses, we are discarding to a degree our more static concepts of disease entities, and are attempting more and more to understand all the elements within the individual and his environment that have played their part in creating the kind of problem which he brings to us. For only with an understanding of all the elements that have played a part in shaping the whole life experience from babyhood up can we interpret adequately the behavior reactions of the individual.

Behavior has a purposive value for the person, whether that behavior be good or bad, moral or immoral, healthy or unhealthy. The acceptance of this fact demands that an adequate study of the whole range of experiences of the individual be included before we can attempt to evaluate any given difficulty.

In adults as well as in children combinations of behavior reactions recur so frequently that it is possible to classify these symptom complexes under diagnostic headings, but to get results through treatment we cannot treat the disease entity of dementia præcox, manic-depressive psychosis, or other diagnostic categories. We must, however, concern ourselves with the dissolution of some of the destructive emotional, physical and environmental combinations involved in the state of unadjustment. Through the period of treatment, often prolonged, attempts are made to reintegrate the elements in the personality of the individual. This process of integration—if it can be carried far enough—may make for a reëstablishment of normal relationships within the individual himself and be-

[1] Reprinted from *Mental Hygiene*, vol. x., by courtesy of the author and the National Committee for Mental Hygiene.

tween him and his environment. As an illustration, in the following case a diagnosis of præcox could be made, for the boy of eighteen is unable to hold a job and has become increasingly unreliable, quarrelsome, and suspicious, often threatening his employers because of imagined mistreatments and partiality shown to the other employees. In conversation he talks freely of his imagined wrongs and describes in detail his plans to get even with the office boys, the head clerk, and so forth. The office force as a whole, he feels, is down upon him. He frequently overhears telephone conversations which he is sure concern his own private life. He has detected meaningful glances between individuals as he enters a room suddenly and occasionally has found sentences in letters in the outgoing mails which, he believes, apply to him. He admits that he is altogether miserable and unable to do his work satisfactorily because of his preoccupation with his worries, but beyond this he has no real insight into his difficulties.

To discharge him offers the firm a release from irritation. He will carry to another job, however, the same set of attitudes, predetermined by his own unhealthy emotional problems, and the same cycle of irritations, culminating in the loss of the new job, will occur. To place him in a hospital for the insane will protect society from any destructive attempts that he may make in his desire to get even with or to destroy his persecutors, but this, too, is only a protective measure and has in itself no positive curative values.

A study of the boy's background reveals some suggestive facts. The youngest of three children, he was always the mother's favorite. The early developmental period was punctuated with many illnesses, which necessitated a good deal of the mother's attention. Because of a heart condition which may have been the result of a severe attack of measles at one and a half years, the mother did not feel free to wean him, and nursing was continued until after the age of three. Weaning was a distressing experience for both mother and child. While the mother attempted to find appetizing foods, he steadfastly refused to partake of anything but liquids. To the present day his diet is chiefly of

the liquid and semi-solid variety. At the time of this illness the mother slept in the room with him and this arrangement continued until the boy was seven, for each time she proposed going back into his father's room, he developed night terrors or such severe crying spells that the separation was constantly deferred.

At the age of seven the family doctor finally told both the boy and his mother that this must stop. Accordingly the mother left him to sleep alone, but the boy developed sleeplessness and frequently complained of an inability to breathe. The attacks of difficult breathing were diagnosed as asthmatic and were referred to the original cardiac condition. During the asthmatic episodes, the boy developed the habit of wandering into his parents' room, for, as he said, "There is only one window in my room and there are three in yours." The visit to the parents' room usually resulted in his getting into the mother's bed and, this objective attained, he could sleep peacefully until morning. At school, because his mother felt that he should not be exposed to undue strain, he was privileged to leave the room without permission. She accompanied him each day to carry his books and met him at the gate at the end of each session. Normal play interests were denied, for there was some question of the effect upon the heart condition. Occasionally, he was challenged by some boy to fight or the fellows picked on him in line. Each time, however, he ducked and ran, and when the irritation got too great, his mother would visit the offender's mother, or, on occasions, she would administer a beating herself. She decried fighting, and the boy recalls that many times she said she would rather have her son dead than have him fight.

The boy's school progress was rapid because of the help which the mother gave him in the hours of effort that went into preparation. At fifteen he graduated from high school and a college career was planned. The summer after graduation, however, his father died and it was necessary that he go to work. There was no chance to think of the inadequacy of preparation which his fifteen dependent years of experience had created for him. Never having had to face reality unprotected, he must now meet the pressure

of a job and the competition of his fellows on his own, with no maternal protection. Never having had to face the display of authority, he must now conform and without questioning. His sensitive, shrinking efforts seemed to irritate his employer, and after a call down, his work became even less effective, and the harshness of the criticism increased. The duration of each job grew shorter and shorter, until at the time the boy was brought for study, only temporary jobs were available. To each he made application as if it were his first employment, not only because the references from places from which he had been discharged were no good and the jobs from which he had run without notice could not be mentioned, but because he felt vaguely that the system of persecution was gradually becoming more complex, and on several occasions he felt that questions put to him by his prospective employer seemed to point to previous information about him.

It is not hard to see some of the cause-and-effect relationships in this lad's problems. The childhood filled with over-emphasized dependence, the prolonged infantile habits of gaining satisfaction, the over-protected atmosphere, and the boy's own attempts to hold on to the infantile patterns of behavior, even though he had reached adulthood on the physical and intellectual levels, suggest the complexity of the adjustment problems that a job in the competitive industrial world must have created for him. It is not difficult to see how, in his stormy course from one job to another, in contacts with irate employers and playful office boys, the lad frequently felt insecure and harassed and was conscious of a need to seek protection. Although he had never in the earlier years been permitted to fight, the wish to get even struggled to come through. The ineffectiveness of his punch on several occasions—with painful results of a stiff beating from the other fellow—his sense of chagrin, and the never-ending guying produced increased irritations. To lose his job meant no income for the family, since his mother was not well and his two sisters were married and busy with families of their own. To fight was impossible. The brooding, his own feelings of hurt

pride, and the constant pressure gradually effected the change that brought him for study as a mental case.

Treatment must first bring release from irritation on the job, and so an employer who could understand was found. The period of adjustment was stormy, punctuated with many "blow ups" from the boy. The fact that there were few employees and that he was responsible only to his employer made these outbreaks less destructive to him. On the social side, an attempt was made to tie him up with a group with whom he could compete successfully. A debating club interested in politics and world issues offered an outlet with a chance of success. He had won a medal at debating while in high school, so this step was fairly easy for him to take. It was in relation to the deeper emotional problems that most difficulties were found. The reason for this is obvious when we note the deep infantile attachment which never had been relinquished. To relate the details of the material that came to the surface, while most interesting, would be too time-consuming, and at this point we are concerned with the results. The objective of treatment in all cases is to make possible the adjustment of the individual at a level simple enough in its demands to make successful adaptation possible. In all cases the rapidity of progress toward this objective will be determined by the capacity of the individual. However, at this point, we reflect that in treatment of this boy we are supplying him with opportunities for functioning in a protected environment; in other words, we are in the beginning assisting him to regain his sense of security in a setting where he is understood and has plenty of opportunity to succeed.

PERSONALITY DEVIATIONS AND THEIR RELATION TO THE HOME[1]

BY SYBIL FOSTER

In studying one thousand children known to the habit clinics in Massachusetts, we have been continually impressed with the fact that habits or conduct reported as alarming or annoying are, time after time, only the natural response to the stimuli these children have received from their home setting.

Many leaders of thought and action have, in early years, manifested deviated personality traits, yet, on finding their proper groove, have contributed largely to the world's advancement. Although a few of the "unusual" individuals will undoubtedly become geniuses and leaders, still the dividing line is narrow and frequently only a matter of chance. The rank and file will go to fill the roll of misfits unless circumstances permit many readjustments. . . .

Undue concern on the part of the parents often causes marked changes in the personality of a child. After a serious illness or accident which has placed him in danger and caused anxiety in the household, it is difficult for parents to control wisely. They may cease to exert authority, fearing harm will result, and it takes only a short time for a child to learn that with his symptoms he may control his environment.

Oversolicitude often defeats its own ends by creating such an intense emotional situation that the original difficulty is only exaggerated. Take the case of a distracted young father whose wife died of tuberculosis. Fear that

[1] Reprinted from the *Proceedings of the National Conference of Social Work*, 1925, by courtesy of the author and the National Conference of Social Work.

his one child may contract the same disease has made him watch her physical condition closely. To him, gain in weight appears as the most important thing. Therefore three large meals a day are forced upon her; each meal becomes the occasion of coaxing, pleading, and threatening, and ends either in the father's feeding this child of six every mouthful she eats, or in a complete loss of temper on his part and the administering of a sound spanking, either result making the desired end harder to obtain. . . .

The attitude which many parents take, of expectation of undesirable conduct and of inability to cope with it, has a strong influence on the children. If constantly given the suggestion that John is different and can't eat what the other children do, or Tom simply won't stay in the yard, or Mary is so shy before strangers, there is no cause for surprise when Tom bolts every opportunity or Mary hangs her head. Children like attention, and will obtain it somehow. This is shown quite clearly in the case of a youngster who bears the reputation of being willfully destructive and disobedient. At the age of three and a half, he rides roughshod over all the members of his family, and destroys anything to which he happens to take a fancy.

Upon one occasion he played quietly on the kitchen floor until pointed out to the visitor by his mother with the remark that, "He's a devil—we can't do a thing with him." From that moment he fully lived up to the rôle expected of him. He turned on the gas burners, broke the glass castors on the piano stool, smashed to bits a large, new doll belonging to his sister, and finally threw a wooden packing box at the visitor. During this scene the mother lay on a couch, complaining of a headache and saying weakly, "Oh! isn't he awful. He ruins everything, and I can't stop him." Discipline in this home is a most casual matter. One moment the child is scolded and threatened for his conduct, and the next moment it is the object of laughter. Repeatedly he hears his pranks talked over and retailed with an air of pride. He appears to care little for approval or disapproval, and takes delight in the act of destruction and the excitement it creates; with an eye on the audience and a joyful grin he demolishes whatever he can lay his hands

on. He finds it quite satisfying to be "different," and "the despair of the family."

We speak of a child's environment, yet often the term "environments" is truer. Take, for instance, a Syrian lad of five, the oldest child and the only boy. His parents are young, American born and educated, and are trying to live up to American standards as they see them. On the first floor of the same house live the Syrian grandparents, holding to their old-world ideals and customs. They idolize the children, particularly the boy, the future head of the family. He is pampered and waited on by them, and when obedience is demanded by his parents he is told by his grandparents that nothing is too good for him and that he does not have to obey. He soon learns defiance and disregard for his mother's wishes, and must be in constant conflict because of the clashing standards and demands of his environments.

We are apt to feel that the environment in a given home is the same for all the children, yet often it is totally different because of the attitudes of individual members. Special likes and dislikes and open favoritism all tend to foster jealousy and injured feelings, which are followed by varying results in the way of personality twists or deviation.

We have been interested in the study of two brothers. One, at two years, is vivacious, active, and pugnacious, striking and slapping his brother or playmates to gain his ends, and domineering over his brother two years older. He is responsive and friendly, readily drawing the adults to him because of his cheeriness and air of bravado. The other, at four years, is quiet and retiring. He gives way at once to his little brother's demands, making no effort to assert his rights, is shy and unresponsive, and inclined to be fretful and oversensitive.

The marriage of the parents has proved fundamentally unhappy. When the older boy was a year old, the parents separated, but, after several months, the mother allowed her husband to return because of her anxiety over the youngster, who had been devoted to his father and was apparently grieving for him. The children's earliest recol-

lections must have been of constant quarreling. The family was lined up, with the mother and younger boy opposed to the father and older boy, each parent defending the special favorite against punishment and discipline by the other. This continued until the father left home for good about a year ago. His going did away with much of the friction but left the older lad without his champion. After a few attempts to assert himself, he sank to his present state of letting things go without a struggle. He lives in an atmosphere of discouragement and discontent. He is the object of fault-finding, scolding, and blame, and he feels inadequate and discriminated against.

The younger one, on the other hand, receives praise and kindly interest, and is buoyant and aggressive. He has the backing of his mother, who turned her affections to him when unhappy with her husband. The mother and her relatives are unconsciously but steadily exaggerating and making permanent the markedly different personality traits of these two boys who are living in the same physical surroundings.

SOCIAL EFFECTS AND SOCIAL TREATMENT

YOUTH IN CONFLICT[1]

BY DR. MIRIAM VAN WATERS

Five Russian boys come before court. The petition alleges truancy, that they wandered the streets and broke into a warehouse, stealing and damaging property to the value of one thousand dollars. The oldest is Alec. He is eleven years old. He is quiet and dull, with a great head, thick neck, protruding blue eyes, pale face and listless hands. Physical examination shows him to be twenty pounds underweight. Tonsils are diseased, he has adenoids, weak eyes, irregular heart-beat and congenital syphilis. Nevertheless he has managed to fulfill requirements of school and is not below grade. His intelligence as revealed by customary psychological tests is average normal.[2] His mother is dead and his old grandmother keeps house, an affair of four rooms near the railroad tracks, immaculately clean, incredibly airless, while his father, a Russian giant with yellow beard and immense shoulders, works in an iron foundry.

"Why don't you keep your boy in at night?" asks the court.

The big father looks tenderly at the boy:

"Oh! Alec! I thrash him well, but he goes out with bad boys; they take him out."

The grandmother at this remark buries her face in her hands and weeps silently, without hope. She is tall and

[1] *Youth in Conflict.* Reprinted by courtesy of the author and the publishers, the *New Republic.*

[2] In the Juvenile Courts, of which these cases are typical, the children have been studied carefully by a competent physician who has made complete laboratory tests, a clinical psychologist who has made the customary mental examinations, in many instances observing the child over a period of years, and a probation officer who has furnished the social history.

broad with the flat, capable back of the peasant woman. Her white apron is bordered with hand-made lace, whereon a great bird with outspread tails walks among the lilies of the garden of the Mother-of-God. The grandmother's head is covered with a white linen cloth. She does not speak; the anguish of her posture shows that she considers this scene the final tragedy of her people.

The boy next to Alec is Fred. "Fred's" name was Dimitri. It is customary among the children of foreign parents to receive American nick-names and to lose their own names which bear historic, or literary value. He is eight years old. He has roving, intelligent gray eyes, set in a wrinkled, aged face. The physician has declared him normal; his body is found bruised with marks from a beating. He is about eight pounds underweight. Fred is an habitual truant from school. He is of more than average intelligence. Both his parents work in factories. So do his older brothers and sisters. In his house the only thing Fred has the slightest right to is one-third of the mattress he shares with two brothers. There is not poverty at home, but sugar, milk and fruit are absent. Every night after work father and mother and eldest son go to church. As long as the children are in arms they too go to church.

"Why don't you keep Fred at home?" the court asks.

"Oh, Fred!" cries the father, gnashing his teeth angrily. "He is wicked. I beat him to death,—then they say—it is against the law. The teacher comes and says: 'Let Fred come to the playground.' I let him go—he never comes home."

"Fred, where do you sleep?"

"On the roof," replies Fred.

Fred, in company with gangs of boys, spends weeks away from home, sleeping on roofs of hotels.

"What do you wish us to do for Fred?" asks the court.

"I don't know," replies the father, his dark face showing bewilderment and anger.

Other members of Fred's family are equally perplexed. The mother, since she came to America fifteen years ago, has never laid off work more than six weeks at a time. She has borne nine children. She is strong and practical.

Her only self-indulgence after fifteen years of factory work is this pink silk fringed shawl on her head. The older girls work in laundries. They are heavy muscled, industrious, chaste, slow of speech and movement, clumsily dressed in American clothes. So with the older sons, hard-working peasants, struggling with the iron foundries, as their forefathers toiled with land.

Fred is the one rebellious spirit. His teacher asserts he learns nothing in school, yet his native intelligence is superior. There is in him something indomitable.

"Why did you break into the warehouse?"

"I was looking for junk to sell. Me and him," indicating the third offender, a plump, feebleminded Russian boy of twelve.

"What did you take?"

"A teeny piece of copper wire."

"Is that all?"

"Yes."

"Where did you get it?"

"I pulled it out of a big machine."

"Didn't you know that would spoil the engine which cost two hundred and fifty dollars?"

No answer.

"Are you sorry?"

"Sure."

"What did you do with your wire?"

"I sold it to a junk man for thirty cents."

"Who is he?"

"There," pointing to the peddler in the rear of the room.[3]

"What did you do with the money?"

"I drank two soda pops, bought one package of cigarettes and went to the show."

"Whom did you take with you?"

"Him," contemptuously indicating the weakwitted boy, who is servant and camp-follower of Fred.

"You say you took nothing else from the warehouse?"

[3] In many communities it is a violation of the penal code for a dealer in junk to buy from a minor. This peddler unquestionably contributed to the delinquency of the boys. For the sake of receiving his thirty cents they committed burglary and theft.

"No."

"Why then was the place in such a mess? Did you smash the tiles?"

No answer.

"Did you throw paint on the floor?"

No answer.

"Did you ransack the desk?"

No answer.

"Oh! You did!" cries the feebleminded one. "You were looking for the fountain pen, and you wrote a letter to your sweetheart."

At this allusion to his private affairs Fred becomes still. His eyes flash hostility. He is eight years old, alert, defiant, he has already built his defense against encroachments of the adult world. Eager to possess all that adults know, his eyes and ears are strained for chance colors, perceptions, sounds. He is the most alive spirit in the court room. The detention home superintendent reports that he has read tales of Twain, Stevenson and Swift. He is thirsty for mental nourishment. Answers and questions, ponderous attitudes of adults, occupy him only an instant; it is with difficulty he restrains his impatience.

"Your Honor!" broke in the owner of the warehouse. "Permit me. This is the third time my place has been burglarized. These kids broke in so they could get some copper wire, they say, and they darn near spoiled everything. Besides damaging about eight hundred dollars' worth of machinery, they broke my tile-models, threw cement and color over everything; tried to drink some dyes, and when they couldn't, poured liquid over everything and smashed bottles just as if they was drunk or crazy.

"I don't want 'em shut up; they ain't none of them vicious, but I do want my things let alone!" He is obviously kindly, annoyed and perplexed.

The priest in the rear of the room gets up, the Russians listen with intensity. He speaks through the interpreter.

"My people will attend to these boys. We are deeply grateful to you for taking an interest in them, but we will now see to them. We now take them home."

"Can the parents pay?" asks the court.

"Obviously the parents cannot pay," replies the priest with dignity.

An Americanization welfare worker is asked for an opinion.

"The trouble with these boys is that all the mothers and fathers work; all they think of is work; money, work and going to church. They keep the children home from school to care for the younger ones. They say they learn wickedness at school. Only if they are fined will they see the importance of obeying the school law. They will not permit the children to go to the playground, or to school entertainments where there is music and dancing. They think play is evil. The children are beaten for any trifling disobedience. They cannot understand their parents' religion, the church is so small that they cannot get in. Because of cruel punishments for slight faults the children really do not know right from wrong. They get no medical attention, and physically they are all below par."

Indeed nothing could present greater contrast than the ruddy, honest giants of fathers, and the pale, sickly, harassed little boys.

The court would like to solve this mystery.

"Which one of you is the best talker? Tell the simple truth without fear; why did you smash the tiles and throw the paint around? Was there fun in it?"

Apparently this was a new manner of adult attack. They were used to questions that parents and teachers asked to answer themselves, to questions that were put merely for the purpose of smashing you down; here was a question that disturbed the inner circle of your feelings about yourself. Alec perceived that the court was trying to put itself on an equality with him; he was touched and his face flushed, but obviously he lacked experience in words. His tongue struggled:

"I dunno. We was just monkeying around. We wasn't faking,[4] honest."

The problem was too much for Alec. He sank back pale and tired with this new emotion.

[4] "Faking" is the expression used by small Russian boys to express petit larceny.

Suddenly the court saw the affair in a new light. This was no ordinary malicious mischief. There was in it a primitive outburst of energy, a volcanic jet of elemental forces long buried under crust of intolerable dullness, barrenness and meanness of their daily lives. They were not wanton young criminals, seeking to destroy. Rather, in this crude and unfortunate way there had been some fundamental dealing with primitive matter, with brick and boards, flying colors and liquids and crashing sounds which, in spite of waste, had satisfied some savage spirit of creation.

Who indeed were these five children? Their forebears had lived in immense spaces on Russian steppes, without physical restraint. They had intimate contact with the soil, with frost, snow, sun, sweat. They handled reality direct. They wrestled stubbornly with land, for mere existence. They were used to listening to the voice of prophets, one of whom had called upon the very fathers and mothers of these boys to arise and follow him from war-threatened Russia to America where, in a holy vision, he had seen the exact spot where God wished them to settle.[5]

They obeyed. They had squeezed their great bodies into crowded houses along the arid, treeless strip of land near the railway tracks which evidently had fulfilled the requirements of the vision. They found work and prospered exceedingly. Apart from beating their wives and children from tradition, they were the gentlest of men. Labor and prayer governed their lives. Had the prophet likewise foreseen their children, condemned to sicken in city smoke and bad air, to starve for want of the rich emotional and imaginative folk-life which was their spiritual heritage as children of immigrants, "Children of Loneliness"?[6] If so,

[5] Over 5,000 of the Russians in the Los Angeles Colony are Molecans, a religious sect originating in central Russia about 1805. Molecans consider it wrong to resent any injury. They also believe they are visited by spirits sent by God. Russia did not adopt universal military service until 1880. At the time of the Russo-Turkan war several thousand settled in Southwestern America. This immigration is typical.

[6] See Anzia Yezierska, *Children of Loneliness,* Funk & Wagnalls, New York, 1923.

of course, it could not have altered the vision, nor changed the course of action, for prophets must take the long view of everything.

The Russian priest again announces they are ready to take the children home. The court admonishes the boys, places them under detailed probationary supervision, which will involve systematic visits to the clinic, entrusts the book-thirsty Fred to a young librarian who agrees to act as big brother, although both are dubious. With piercing wails the feebleminded boy is detained so that he can be safeguarded in a school-home. The court instructs the parents to pay a small weekly amount to the owner of the warehouse, not as a fine, but to teach them to watch their children better, and not on any account are they to beat the boys twice for the same offense, for as one parent remarked:

"I think of my child Babin; my heart grows sad, and then I thrash him."

The court asks the school teachers to coöperate by giving these boys rich literature (they are passionately fond of fairy tales), good art, vivid history and civics. For these young teachers, unmindful of the boys' really superior native abilities, had grouped them with dull children. The Americanization worker is asked to work a shade more tactfully with parents and priest; the owner of the warehouse is commiserated, but advised to have better locks and window screens. (He ended by putting twenty dollars into the Community Chest Fund.) The dealer in junk is placed in the hands of the District Attorney to be taught not to make profit out of the sins of little boys.

The hearing is over, but the "case," as a matter for Juvenile Court, has just begun. At frequent intervals for two years, perhaps more, the Court will see these boys, following their needs, modifying order of court as conditions change.

A boy of six was brought to Juvenile Court by his father, a "shell-shocked" soldier. He was a child of superior intelligence, dark eyed, healthy, attractive. He had temper tantrums, tore and destroyed clothing and house-

hold articles. He tried to set fire to houses and to gouge out the eyes of his infant brother. The child's mother was frail, she loved her husband, but was fearful of pregnancy; her children meant to her only agony and terror. She exaggerated all discomforts, even nursing was to her a sufficient cause of nerves, tears and debility. Her whims and anxieties filled both her husband and herself with constant alarm. On being removed from this home, temporarily, the boy of six showed no further marked disorders of temper. He became tractable, affectionate, interested in his play and school.

Such cases, when neglected, come later to criminal courts and insanity commissions on charge of arson, violent assault or perversions. This child of six yielded almost immediately to the simple treatment of being surrounded with adults who were more interested in him than in their fears and anxieties.

A recent poet speaks of a plant in the tropics as a "green vine angering for life." [7] This expression can be applied to some children who come before the court; literally they appear to be "angering for life," so intense in their struggle, so great in their need for real support. Their energy manifests itself in strange acts; they lie, steal, set fires, fling themselves into passionate attitudes, become violently angry, annoy and bewilder their parents and teachers who do not guess the underlying cause which is their own adult attitudes, and selfish absorptions. In certain homes it is as if the older members stunted and dwarfed the younger by absorbing all the nourishment, that is to say, the attention, approval, affection and chance to win social esteem which are the sources of growth to personality.

Vivian was thirteen years old. She was an attractive girl with average intelligence. When brought before the Juvenile Court she had been riding in automobiles with men late at night, and occasionally drinking liquor. Her real difficulty, however, was ungovernable temper. She had been a child prodigy, dancing on the professional stage for seven or eight years previous. Although attractive to men and prematurely exposed to masculine attention, she had never

[7] Wallace Stevens, *Harmonium*. Alfred A. Knopf, p. 138.

yielded to a lover. Once, before going on with her act she had fancied some older girl was to be preferred in the scene, and she attacked this girl, and set fire to the wings of the theater. On being placed in a private school by her mother, she tried to burn it down. When expelled, she went to live in a hotel room with her mother; so frequent were tantrums, screaming, tearing of clothes, smashing furniture, that her mother was asked by landlords and police to move from place to place.

Her parents were divorced. Her father was a cruel, domineering man, her mother of cold temperament, devoted to finery, to pleasures of living in comfortable surroundings. Vivian had never known family affection, or normal play. Her possession of physical charm had been used by her mother, first to gain admiration and pleasure for herself in "owning such an attractive daughter," later to earn a living for both on the professional stage.

Vivian's temper tantrums after two years of treatment in a private school (where the routine is simple and the muscular outlets vigorous) have almost disappeared, and with them all desire for excitements of the theater, which, to tell the truth, never appealed to her. She is content to romp and study like any youngster of fifteen. In Vivian's case there was struggle to win her mother's interest and affection. When her mind was turned from this hopeless task to the more possible goal of succeeding in an atmosphere of healthy, country school life, her behavior became normal.

To the maladjusted child in the family-group, life is an anxiety; it dwells under a nameless shadow of fear, often a sense of guilt and inferiority. It is forced into the domestic arena, sometimes as participant, sometimes as silent spectator condemned to lose no matter which partner wins. Adults often imagine in domestic strife the only damage done the child is neglect, or temporary suffering, if it is deprived of a mother's physical care, or the bread winning capacity of the father. But the damage is more extensive and may permanently destroy the child's mental health. No amount of "patching it up" or "returning to live together for the sake of the child" can restore the child if

there is an undercurrent of hostility, suspicion and dislike between the parents. For little children are not so much influenced by words and actions of adults as by attitudes.[8]

The court has seen a little boy cuddled against the breast of a hard-swearing, hard-working father, alleged to be "violent tempered and cruel" by the mother, refuse to go to this same mother, whose complacent smile illustrated her inner content with her own righteousness, but the child knew the father was a source of comfort to him, and the mother a source of anxiety. Children, like animals, respond to the attitudes of human beings which reveal their inmost nature.

The normal family is dynamic; its standards are constantly enlarging to meet requirements of the changing ethics of the world, and in process of this adjustment it carries youth along with it. New ideas of political and industrial relations, war and peace, Christian fellowship, treatment of women, crime and punishment, religious dogma are discussed. Parents by vigor and clarity of thought furnish their children with a guiding line. Hence these children honor and love their parents, who in the only worthy and productive sense "possess" their children and fulfill the saying of the Chinese philosopher:

"We keep only that which we set free." [9]

Such families realize times are changing and they have courage and faith. This description of the healthy parental attitude is not modern. The Talmud expresses it in the admonition:

"Limit not thy children to thine own idea. They were born in a different time."

If we recall the doom which twenty-five years ago engulfed tuberculosis sufferers, we gain insight as to the predicament of the majority of the insane and delinquent to-day. A diagnosis of tuberculosis was like a sentence of

[8] Kempf, *Psychopathology*, p. 747.
[9] Lao-tse, Chinese philosopher.

death, or life-imprisonment. Strict isolation from normal human contacts, gradual enfeeblement, progressive despair were the usual accompaniments of "consumption." Public opinion shunned the sufferer whose condition was deemed so hopeless; it compelled herding patients in cold, dreary barracks, or leaving them in cellars and garrets of tenement houses to perish miserably. The most enthusiastic humanitarian would never have dreamed of asking hundreds of thousands of people in midst of joyous merry-making to think for a moment of tuberculosis on Christmas Day. Yet the public health movement in America has done this very thing with its gay-colored anti-tuberculosis stamp. When we send it now with greeting and symbols of affection into homes of those we love, we do not ask them to dwell on sadness of defeat by a wasting illness, rather does the opposite picture suggest itself, victory, the open window, tanned faces of little children, the tooth brush, abundant food, sleep, that does more than "knit up the raveled sleave of care," sleep in sun and wind-cleaned spaces that is genuinely creative; more significant than all else, the Christmas stamp of the anti-tuberculosis movement means a public opinion without fear of condemnation. Change in emotional attitude has been caused largely by demonstration of successful treatment of diseased patients and the fact that with increasing scientific knowledge and a growth of public responsibility, disease itself can be prevented. Successful demonstration in its turn has been made possible chiefly through the faith and courage of those human beings who conquered fear and changed their attitude.

More lately personal health is becoming viewed as an adjustment between the individual and his world. It represents an achievement, perpetually renewed, in which the entire being, mind, body and emotions take part. Illness, at least in the opinion of certain psychiatrists, is thought to be a response of the organism to some life-situation, to thoroughly understand which it would be necessary to know what the sick individual really wanted, to what field of human experience or attainment he was seeking entrance, what forces without and within held him back.

Sickness, thus interpreted as an episode in a life-journey becomes more than ever a social health problem. All this the public is beginning to comprehend, and while the great leaders must still wrestle with specific disasters like syphilis, cancer, and infectious children's diseases, their solution is now chiefly a matter of research and human energy. Public opinion is willing, that is to say, to let the patient be cured. It no longer is willing to cast him out of the herd because he is sick. . . .

Clifford Beers in 1908 published his book *A Mind that Found Itself*. Other men have written of their experiences while insane, but no one before wrote with such a fiery desire to help his fellow-beings. De Quincey, for example, even the gentle Lamb, thought themselves rather clever fellows when they expressed their flights from reality. Beers saw that insanity is a human problem and that it can be solved only by enlisting the service of all humanity. He found that ignorance and misunderstanding of mental disease was the cause of harsh treatment, loneliness and violence he endured at the hands of physicians, superintendents, attendants, and guards. A native of New England, student in a foremost university, he realized the darkness of public opinion everywhere, that the insane were outcast because they were dehumanized in the eyes of the community. If a member of a favored social group could suffer this isolation, how much more keenly, he reasoned, would the multitude of unknown men and women suffer. With the restraint of genius he was able to see that the injury was not personal, that cells, dungeons, strait-jackets, beatings, humiliations were not so important issues as was the blank wall that separated the insane from normal contact with sympathy or an understanding attitude on the part of those who had charge of them. His book was written to reveal the mental patient as a human being, responding to the same mental and social situations that other people respond to, but perceiving these situations differently because of mental illness. So clear, simple and unselfish an account of human disability has never before been given. The book (which was a literary triumph) sounded the note whose overtones brought together the

first Mental Hygiene Society, Connecticut, 1908. The following year the National Committee for Mental Hygiene was created, and within four years had enlisted America's most illustrious names; physicians, clergymen, judges, lawyers, educators, men of science, social workers. Shortly, over twenty states organized Mental Hygiene societies. The activity spread to Europe and no less than ten countries have organized leagues; it has become an international movement. . . .

The aims of the Mental Hygiene movement are to make widespread the knowledge of causes of mental ill-health, to secure proper treatment for those whose condition requires custody, to increase our institutional facilities so that feeble-minded, epileptic and insane can be properly housed and cared for, to gain adequate legislation where it is lacking, to assist in colonization of defectives, and thus lighten financial burdens of the community, to apply therapeutic measures whenever possible, to bring about awakened interest in normal mental health to parents, teachers and other social groups, and to prevent delinquency and other disorders of conduct.

For this purpose the National Committee for Mental Hygiene has established child guidance clinics in various parts of the United States under the direction of Dr. V. V. Anderson. The child guidance clinic, with its staff of psychiatrists, psychologists, physicians and social workers, offers diagnosis and social treatment to the problem child whose mentality is such that treatment in the community is likely to be successful, but whose emotional or behavior difficulties have created maladjustment. Parents, teachers and social agencies may here obtain the clews to adjustment. It is a big program of community education and cooperation. Rather than a duplication of numerous clinics that exist for study of such children, clinics so choked with cases that constructive social treatment is impossible, this child guidance enterprise is bent on demonstration. Only the number of cases that can be adequately handled are received for intensive work. This plan is one calculated to strengthen all existing social resources and to put fresh courage into any schemes of child welfare in the

community. No one can estimate the service it is likely to render problem children who are on the verge of delinquency. It is not so much a new method of treatment as a means of bringing all available forces to bear on a single attack upon the problem. . . .

The mental hygiene movement is showing us that behavior difficulties are never trivial; ill-temper, habit of failure, jealousy, rage, over-discouragement, marked fluctuations of energy, moodiness, frequent sickness, evasion of tasks and hard situations, "nervousness," oversensitivity, petty delinquencies, are danger signals which indicate that something is amiss in the interplay of the individual and his environment.

JACK LONG: A CASE STUDY FROM THE JUDGE BAKER FOUNDATION[1]

BY DR. WILLIAM HEALY AND DR. AUGUSTA F. BRONNER

John (Jack) Long: 15 years, 6 months; born in U. S. Father born in South America, has lived in U. S. since early childhood; mother born in U. S.

INTRODUCTORY STATEMENT

(October 1918.) Jack Long was felt by the court to be a desperate young offender, too dangerous in his criminal proclivities to be committed to the correctional school for boys, to which two of his companions in delinquency were sent. It was doubted whether Jack would be reformable by methods used with juveniles and it was thought an injustice to subject others in the institution to the influence of his reckless tendencies toward criminality. The court took counsel with a social agency which specialized in helping children and the agency suggested a thorough study of the case.

Accompanied by his mother and the agency visitor Jack was brought to Boston, but in charge of a police officer in plain clothes. Before leaving home he told his mother that he didn't want to be "examined"; he would just as soon be sent straight to the house of correction. The police felt that the boy would make an escape if possible and that they were responsible for him, since his case was merely continued. The officer had a tussle with the boy in the station and found him difficult to manage on the train from the seaport mill town where the family lived, and when they arrived he declared it would be necessary for him to sit in the room with the boy. He insisted that Jack was probably the hardest young criminal in southern New England and

[1] Reprinted by courtesy of the Judge Baker Foundation, Dr. William Healy and Dr. Augusta F. Bronner, directors. (This is Case 13 in Series I.)

that the strong arm of the law was the only thing of use in his case. Upon our refusal of his arrangement he remained in the waiting room and two or three times poked his head in the door to see if Jack had not escaped, he was so quiet. Then later, when he found that the boy was working most amicably with a woman in another room further along the hall, where he could readily escape, he was amazed but convinced and agreed with us that he might as well spend the rest of the day around town, until we were ready to dismiss the boy. . . .

STUDY OF THE BACKGROUND

FAMILY. (The facts in this case were secured in interviews with the mother and visitor and from reports of the boy's father, brother, school principal, employers, and probation officer. The accounts contained no contradictions.)

Father: 50; a man of rather good features and refined appearance, but who looks old for his years. He has been a steady worker, of temperate habits; of recent years he has earned good wages and has been saving so that now he is a man of a little property. He obtained a meager education in a grammar school in a small mill town and went to work early in the mills. He was brought as a very young child by his parents to New England, and when he was 12 years old, the family moved to Y, the city where he still lives. He has gradually worked up to the position of foreman. He very evidently is a man of fair intelligence. He has a good disposition and has shown towards his family the attitude of a frugal, steady working mill operative who believes in little more than legal educational requirements for his children.

Father's Family: Mr. Long comes of decidedly healthy stock. His father still lives in old age, a man of Portuguese and French ancestry who emigrated from South America to work in the mills. Nothing is known derogatory to his character, unless it is that he occasionally drank to excess earlier in life. His wife, who died recently, came partly of Irish stock. She was quite normal and healthy until shortly before her death. They had ten children, seven of

whom grew to adult life. One was a sailor, another a saloonkeeper; the others went into business or trade for themselves after working in the mills for a time. Several are in comfortable circumstances. One of this fraternity was "smart and kind hearted" but used to wander about much and finally went to Canada and lived by himself in a shack among the Indians. Another, who, up to this time, had been a good man, a foreman in a mill, at the age of 45 became violently insane and died a year later. "The doctor said it was paralysis."

Mother: 48. She was born in a New England mill town. She received less than a complete grammar school education, began to work in the mills as a girl, and was married at 19. She had nine pregnancies in rapid succession. She reports herself hard-working and always strong and healthy, until latterly she has developed a goiter, accompanied by much nervousness. As observed by us appeared excitable, high-strung, jocose, rather coarse fibered, sensible in some ways but superstitious; she reports herself much afraid of ghosts.

Mother's Family: Her father was Irish, a carpenter, excessively alcoholic, and died of an accident in middle life. Her mother, French Canadian, is alive in old age, "a good woman, not afraid of ghosts or any one." This couple had seven children, most of whom worked in mills early, and then, as in the case of the father's family, went into other occupations. They have been steady people, and most have comfortable homes.

Children: (1) Manuel, 28. Married; has two children. A mill foreman. (2) Joseph, 27. Married; has one child. Working in the mill since return from the army. (3) Alice, 26. Married. Has taken a motherly interest in the younger children. (4) Girl, died in infancy. (5) Harry, 17. Works in the mill. For two years was away from home at a church school. (6) John. (7) Peter, 14. Just graduated from grammar school. All these children are reported to be in good health and all of normal mentality; but at least some of them are high-strung and at home quarrel somewhat with each other. None except John has been delinquent. (8) and (9) died in early infancy.

(From the best report available it appears that there have been no court records for this family, no delinquent conduct except as mentioned above, nor other cases of insanity, nor any of epilepsy or feeblemindedness.)

Developmental History. Pregnancy and birth quite normal. Weight at birth about 9 lbs. Bottle fed from the start, but no nutritional difficulty. (Details on agency record: Sat up at 4 months. First tooth at 7 months. Crept at 8 months. Walked at 14 months. Talked at 18 months. Reached puberty at about 14 years.) Never had convulsions or any serious illness or accident. From 1 to 10 years said to have had a tapeworm; treatment was unavailing until that time. The mother understood that this caused the boy's diurnal and nocturnal enuresis, which, however, has persisted with gradual betterment up to the present time.

Home and Neighborhood Conditions and Influences. For ten years the family have lived in the same tenement house on a broad, well-kept street closely built up with houses of the same type. It is a typical operatives tenement district of the better sort with no mills or factories nearby. The home consists of six rooms and bathroom, all in good repair. It is comfortably furnished. Earlier there was crowding with all the children at home, but recently Jack has had a sleeping room to himself. Still earlier there was inadequate income when the children were young and not earning; the mother then aided by taking in washing. Of late years the family income has been very good and the father has accumulated a little property. The children have been very loyal in the family life and have regularly turned over their wages to their mother. They have been brought up to attend church regularly. There has been considerable friction in the home life due to the high-strung temperament of the mother and some of the children, for example, Jack and his brother quarreled much because of the necessity for their sleeping together at one period. The mother is quick tempered toward the children. She speaks in a peculiarly strained voice and gesticulates much. She undoubtedly has much affection for Jack and a real interest in him, but she takes no intelligent attitude toward his problem; she feels that he has caused much trouble and

should therefore be punished. The father is more intelligent but acknowledges his incapacity for managing the boy. He is anxious to have him turn out well and is willing to bear the expense of any present plan for him. An older brother has undertaken to discipline Jack and on one or two occasions a regular fight between them has resulted. The father has frankly approved of this, thinking it saved him the necessity of whipping the boy. However, he has recently made some attempt to better the boy's tendencies by sending him to a married son who lives in Bridgeport. In fact, the father about two months ago, seeing how things were going with Jack, himself sought the court for advice and help, and, two weeks ago, before the boy was arrested, through the probation officer, he consulted the agency which is now interested.

His older brothers have recently been telling Jack that his girl cousin who is dead will come at night and pull his toes. He has come in to his mother in the night with his eyes popping out of his head, saying that he has seen her.

School and Work History. Jack entered public school at the age of 6 and was in the seventh grade when he left, at 14 years, to go to work. Evidently he was retarded in his advancement because of the changes incidental to his having been sent away with his brother Harry to a church school or academy for two years when he was 9 and 10 years old, at a period when his mother was worn out with the care of the children and the family were in better circumstances. No record of the early school career is obtainable, but at 11 years Jack was in the fourth grade and advanced one grade a year after that. His health record all through was "good"; his attendance was good, indeed he was not truant at all; his scholarship was reckoned "fair" until the last half year, when it was called "poor"; but his conduct for two years was graded as "poor" and "very poor." It seems that to have a record of "conduct very poor" in this school is "almost unheard of," and the principal who knew the family and the boy personally very well and endeavored to influence him states that Jack was the worst boy he had ever had in his school. He did not consider him mentally deficient in any way, but the boy

would pay little attention to his studies, was very hot-tempered, and was continually being sent to the principal's office for misdemeanors. He considered Jack undoubtedly the ring leader of a crowd of boys. The principal blamed Jack's home conditions as being unfavorable for his training; he thought the only hope for Jack was to have a man of strong character over him; he needed discipline.

At just 14 years Jack went to work in the mill for eight hours a day. He was a good worker, but changed his jobs frequently, five times in one year. He earned as high as $13 a week. When he was about 15 years old he obtained employment in the stock room of a large grocery store. The manager reported the boy to have been unusually quick in learning, but after about five months he left of his own accord. Jack then obtained work as a teamster, but found it too hard, and at the time we saw him he had been out of employment two or three weeks.

Interests and Habits. According to all reports Jack's main interests are certainly those that call for exciting adventure, and he really seems to have found a great deal of pleasure in adventuresome burglaries with his companions. The probation officer had felt, when the father complained of Jack, that the boy had such an interest in criminalism that it would be better for him not to report at all at the court house. He likes activity. He has a bicycle and sometimes goes on long rides into the country. He occasionally swims in the summer time, but he has never gone in for athletics much. Of late he has been much obsessed by reading "Diamond Dick" stories and the "Detective Story Magazine." He has had no interest in other reading, and, as the school principal said, paid very little attention to his lessons and seemed very considerably to enjoy the mischief and the leadership in mischief which he perpetrated in the school. He often attends moving pictures when scenes of adventure and of the West are depicted. He has shown "a great faculty for drifting to poor companions." In attempts to offset his street life the boy was allowed to go to a poolroom with a brother. At home he would be happy for long playing with his little nephew, a child about a year old. He has very definitely stated that

his one big desire is to live in the "wild West." His brother states, however, that his immediate aspiration is to be the toughest boy in Y.

Jack very curiously is often fearful of sleeping in his room alone, and then he closes the windows, even in summer, and sometimes keeps on his clothes. Occasionally he brings his bed out into the kitchen so that he can be nearer the rest of the family. He is a nervous sleeper and sometimes walks in his sleep. He goes to bed about ten and gets up pretty regularly at six o'clock. He smokes cigarettes to some extent and has at times, with his crowd, done some drinking. His appetite is said to be large, and he eats inordinately of butter and meat, shoveling in his food. No sex habits have been observed, and his mother states that he has no interest in girls.

Companions. For years Jack has been going with much the same crowd of boys, about six in number, who were earlier in much petty mischief in school and at least some of whom have been associated with him in delinquencies. All of these boys are said to come from decent homes, but are characterized as "toughs." Two of the boys, Sulno and Brighton, are said to be his special pals, but the leader of the crowd was thought to be Graylor. It is supposed that he has done the planning. The life of this gang and the excitement of adventures with them are said to have had a greater hold upon Jack for the last few months than anything else.

Delinquencies. For two years or so before he left at 14, Jack was extremely troublesome in school, creating much disturbance in the school room and frequently having to be disciplined by being sent to the principal's office. Since then he has been almost constantly in trouble. At home he has been unruly and disobedient. Once with his crowd he went on a freight train to New York State. He has been in a street fight with an older man. And he has steadily been going with a crowd of bad companions. He has been out late nights much, and his family know that on several occasions he has been drinking. Fearful and really suspicious of more serious troubles, two months ago his father took him to court, where he was placed on probation. But

there was no change in his conduct; the boy rather boasted of his night life and escapades. A week ago he and several of his companions were arrested at night, breaking into a store with a kit of burglars' tools. Gradually, investigation brought to light the fact that this crowd, of which Jack was thought to be the leader, had, during the previous year, been involved in a large number of burglaries, audaciously planned and heretofore supposed to have been the work of experienced criminals. In court and while out on bail Jack showed indifference and recklessness. Indeed, with another member of the crowd he was caught in the middle of the night under suspicious circumstances in a suburb and was held there in jail. When the agency visitor, at the request of the judge, called on the mother, she disclosed the fact that she had been fearful of his developing marked criminal interests for a long time. She related how one night she woke up to find him crawling through her room over to the dresser, where he secured a little sum of money which he might have had for the asking.

STUDY OF THE INDIVIDUAL

PHYSICAL. Jack is very alert physically, quick and active in his movements. He shows much over-use of his facial muscles with forced pressing and other movements of his lips; he laughs frequently in a nervous way. His features are normal, but he has very broad nostrils. His head is fairly well shaped.

Weight 106 lbs. Height 5 ft. 1 in. Thorax poorly developed for his age, but his muscles are unusually well developed for his general size. Boy is evidently very active and strong. His color is fairly good. His teeth are in excellent condition. No stigmata of any kind found. Reflexes all normal, but he shows a marked tremor of the outstretched hands. Vision 20/50 each eye. Turbinates large, but no nasal obstruction. Says he does not suffer from headaches or dizziness. Pubertal development: considerable pigmented pubescence, almost adult. All other examination negative.

MENTAL. (1) *Results on Psychological Examination:* (After being reassured about the examination and hav-

ing the purpose of testing explained to him Jack became very coöperative and pleasant.)

According to age-level and other tests, he grades as having only fair general ability. Intelligence Quotient 89.

Visual memory, good as far as tested.

Auditory memory, poor.

Language ability, poor both in vocabulary and in the use of language.

Apperceptive ability with both language and pictorial material, average.

Speed and accuracy of hand movements, average.

Mental reaction time in general, rather rapid, though language reactions rather slow.

Visual representations, good.

Work with concrete material, on simpler tests, decidedly good.

Learning ability, with visual material, good.

Writing, spelling, and arithmetic about up to seventh grade performance.

(2) *Mental Balance:* Jack undoubtedly shows some hyperactivity, physical and mental, but holds himself well in control on occasion and presents no undue flow of ideas. His excitability is mostly displayed in temper reactions, and that sometimes is violent. He cries readily, but, as reported, it is only in sympathy with his mother. His ideas, which seem rather obsessive, center merely about his desire for adventure and his notions of the West. None of his notions are in the least delusional, however, and his night fears cannot be interpreted as hallucinations. He shows quite normal will powers.

(3) *Personality:* Jack's only peculiarities as a little boy are reported to us as extreme liveliness and troublesomeness on account of this; he was always a self-willed boy, not noted to be any worse when he came back from the boarding school. Concerning his more recent characteristics his mother reports him as very affectionate, to the extent that he likes to be petted; very fond of young children; never at all cruel or vicious. But he is "nervous" and changeable, forgetful, quick-tempered and cross on occasion. Sometimes he goes about the house saying that he

would like to "show" any one what he could do if they attempted to boss him; he is always saying, "No one is going to boss me." But he is really easily influenced by his mother and others. When he shows violent temper at home he gets over it quickly. Recently he has been antagonistic to his family and even at times somewhat rough with his mother. Is fearful at night, superstitious and afraid of ghosts. Has often expressed to his family his love of adventure and his desire for a change.

The school principal says that when Jack was 11 or 12 years old he was repentant after his misdeeds, but that lately he has become quite hardened. Also the boy shows an ungovernable temper. At one time he got into a street fight with an older man. The agency visitor has noted that he is boastful about his delinquencies; he takes pride in his exploits and shows no sense of wrong-doing. Jack has told her he changes jobs frequently for the sake of excitement, and he adds that an easy job makes him look like a baby. The visitor and others have always found that he responds well to kindness. Indeed he has shown himself grateful. Even his brother reports him amenable if properly handled. He is so sympathetic that he cries if his mother weeps, and always gives in to her immediately if she resorts to tears. His employers have remarked upon his great energy and the vigor and indeed success with which he attacks a new job, they say, through a desire to appear manly. The boy is thoroughly gregarious and loyal to his crowd.

As observed by us Jack appeared a very talkative lad, outspoken, anxious to tell his opinion about all sorts of things. He showed no evasion about anything. In some ways he seems extremely boyish, but is sophisticated about certain matters, such as his adventures in crime and somewhat about sex affairs. He is naïve and uncritical in his ideas about the West. He does not reflect about things, is not analytical. He seems to be little disturbed about his delinquencies. In his story he shows himself loyal to his crowd and anxious for their approbation. Above all he does not want to be regarded by them as cowardly. But he has childish and peculiar fears when alone. The reports

of others as well as his own statements show that he is quite suggestible, at least to his gang.

Boy's Own Story. (We found Jack very talkative, outspoken and really anxious to tell his opinion about all sorts of things, and to go into the details of his associations with his bad companions. Only a bare outline of his long story can be given.)

Boy began by talking freely about his school career. He was 9 when he was sent away to boarding school managed by Brothers. There were three or four hundred boys there; they were rather a rough crowd. They slept in a big dormitory, boys of all ages in the same room, and there was a great deal of petty stealing of things from the trunks of the boys. Of course there was some bad talk about girls and sex matters there, but Jack doesn't think he was in the least influenced by this or by the stealing. He was there for two years.

On his return he went to a public school and soon began going with a crowd of boys with whom he has associated ever since. There are six fellows in "the bunch," and they are all of about the same age. Most of them were in school together, but they met outside and have been going together since their school days. "Graylor is the brains of the gang, but I am the next one, and when Graylor isn't around they call me the brains." Graylor never went to school in Y. He works in the mills. "He has crooked ever since he was little, and so have some of the others." Jack says that of course he used to take little things, yes, things to eat, but he doesn't call that anything. In the beginning he didn't like to crook, but the others would say, "Come on, Jackie," and he didn't like to hang back. He had seen the others do things, and Graylor and the others would tell him what they had stolen and how nice it was to have things come easy. When he himself was nearly fifteen, he thought that he would like to try it. But he never crooked alone. Billy Andell was a member of the crowd, "and, gee, he is almost a professional! He can make almost any kind of a skeleton key, even by just looking at the lock. We have a little outfit in a cellar, saws and files and things, and we usually make two sets of keys, and we divide, three going in one

place and three in another." Jack went on to tell about their breaking into places, going into stores largely for money. Often there isn't much money left around at night and so they have to get into more than one place in an evening. He thinks they have broken into at least twenty stores. They divide the money and spend it together. They have a regular place of meeting after work or after supper and they plan the stores they are going into. The others persuaded him to put outside some bottles of "booze" when he worked in the grocery, and they used to drink it. "Andell drinks like a barrel." Saturday nights they raid beer teams and on Sundays sometimes they have broken into beer shops.

Jack says that he has been in court twice before, once when his father complained that Jack had fought with him, and the second time when "we stole booze and drank it."

Talked with at length about his enjoyment of association with these companions, he says that he wants to prove that he is game. He wouldn't want the bunch to think he had a yellow streak. He sometimes goes where he really doesn't want to go rather than say so to the other fellows. He doesn't really care about breaking in. It's no temptation to him. He plays dice on Saturday nights with the fellows, but he doesn't care much about gambling. About the stealing, he never has any temptations to take anything. Of course there are plenty of things a fellow wants and if he lived in a large city he knows that he would feel like crooking because there would be so many things around that he would like. Very probably he would get in with a stealing crowd and go with them if he were in another city. But what he really likes is the excitement of it. He likes to be brave.

These other boys all come from good homes. In school they were the kids who would throw paper wads and notes to each other and get the class upset. He was never truant; he has never stayed out over night with these fellows.

In talking about girls Jack becomes sheepish, but is apparently quite frank. Some of the crowd are bad with girls, especially Billy Andell. "He's just crazy about girls. He's been with a lot of them. He takes them to the

woods and jokes about it. About every kid talks of that." Says that the crowd will be out together on the street and will meet girls, "tough nuts," and pass them and call out, "Say, kid." Then they will begin to talk and all go round together. Says he has done bad things with girls two or three times. He tells us particularly about two "tough ones," they call them the oil twins because their name is something like that. But he doesn't care anything about girls and that sort of thing is no temptation to him, he just does it with the gang. With these fellows he has been to burlesque shows; "that's about the worst." By paying the usher half a dollar they have been permitted to go back to the dressing rooms. He says there have been no bad sex affairs between these boys themselves. He smokes very little.

Jack makes much of the trouble he has at home. His older brothers call him "Big Nose." They are too fresh with him. He is treated like a dog in the family. His mother doesn't want to give him any spending money. Since they have known that he has stolen they are always kicking him about. He doesn't want to stay at home. But Jack is willing to acknowledge that it is partly his own fault and that he has been rough, even to his own mother.

There is only one thing he wants to do and that is to go on a ranch out West. He wouldn't want to be in the country around here; it's too quiet, it's too dead. And the people probably go to bed at six o'clock and there is nothing to do nights. If he was put out on a farm he knows he would run away. It would be different on a ranch; he has read a lot of stories about the West and knows just what it is like and that he would like it. "I want the real rough, tough West, where you get strong and healthy. I want to get out in the cowboy country where they have guns and revolvers and excitement."

Jack says he is not lazy; he likes work. Even if they did say he did all right at the grocery store, it was "sissy work" inside. The only job he ever had that he liked was on a truck; it was heavy work and he liked it. "I want a man's job."

At this point SUMMARY OF CASE AND SUBSEQUENT HISTORY follow:

SUMMARY OF STAFF CONFERENCE

PROBLEM. Delinquencies: Earlier much bad behavior in school. Within last year repeated burglaries and larcenies. Some drinking earlier and sex affairs with girls. Persistent association with bad companions. Fighting.

PHYSICAL. Short, but very strong and active. Quick, nervous movements: much use of facial muscles. Moderately defective vision.

MENTAL. (1) Abilities: Fair general ability. Works well with concrete material; no other special ability noted. (2) Balance: Some suggestion of psychopathic trends—hyperactivity, and poor organization of judgment, ideation and affective life. (3) Personality: Great contradictions—immaturities and sophistication, fears and desires for adventure, tender-hearted, although "tough," suggestible and yet aggressive. Gregarious; desirous of crowd approval. Excitable, high tempered, poorly controlled emotionally.

Final diagnosis concerning psychotic trends and permanence of personality traits must be held in abeyance.

BACKGROUND. (a) Heredity: One paternal uncle became insane, another was eccentric, rover. Mother, exophthalmic goiter. Maternal grandfather, excessively alcoholic. (b) Developmental: Question of tape-worm in childhood. Enuresis has persisted with gradual betterment. (c) Home Conditions: In physical aspects fairly good. (d) Habits: Some smoking.

PROBABLE DIRECT CAUSATIONS. (1) Personality make-up as above, particularly desire for activity and adventure. (2) Adolescence may be a factor. (3) Excessive influence of bad companions, some of whom are semi-professional in criminality. (4) Lack of good home control and constructive effort. (5) Ideation derived from reading and movies.

(Attendance at burlesque shows and some early sex experience seem to have had little influence.)

PROGNOSIS AND RECOMMENDATIONS. In spite of his delinquencies being so extreme they seem not to be representative at all of his real desires and satisfactions. He is not vicious; indeed he shows many good traits. One of

the main questions is to what extent he is essentially psychopathic and by reason of this in any other environment may not be able to keep out of trouble. Under wholesome influences he may possibly do well.

In the light of his intensely marked characteristics, certainly unmodifiable through repression during adolescence, we feel there is no use compromising with him. Should have what his nature demands, namely, a rough, hard life. In pioneer days might have worked out his own tendencies satisfactorily; now preferably should go to the West, perhaps on a ranch, or at least in active outdoor life. If this is not possible, perhaps might find something in northern woods, but this does not promise as much. Is very young, but has such vigor and strength that he would pass as a much older boy. Sea-faring life is another alternative, but on account of his obsessions for the West is not so likely to succeed in it. Of course, wherever he goes, should have friendly oversight. Should have better recreation, reading, etc., but they are all secondary to the above.

Institutional commitment is uneconomical and inimical to boy's good development and to welfare of other inmates and later to welfare of society in general.

Probably little use in having eyes examined; boy would hardly wear glasses because no subjective symptoms from eyes. Enuresis will very likely soon disappear.

SUBSEQUENT HISTORY

With a fine spirit the agency undertook to carry out the recommendations; the court, having read our summary of the case, acquiesced in this. Social agencies, probation officers, and welfare workers were written to in the West, some forty in all.

(We have often had reason to believe that very valuable service could be rendered by bureaus for the exchange of regional information, organized by child placing agencies, juvenile courts, or big brother associations, so that boys and sometimes girls could be found opportunities that they especially need and that are not at hand. The West particularly offers socially therapeutic opportunities, while

the seaboard is the outlet for the needs of some boys. And there are educational and vocational chances that are regional.)

Meanwhile Jack, who said that he would like to go temporarily into the country, was placed on a well-kept farm near his city, owned by very kindly people who at once took an interest in him. The first report was very favorable, but at the end of the fourth day Jack turned up at his own home crying and begging to be taken back, saying that the wind howled through the house and he had not slept while he was in the country, he was so lonely. He exclaimed to his mother, "I am never lonely where you are, Ma."

(It seems very curious indeed for a boy to prove so fearful and so homesick when at the same time he wanted to be far away from his family on a ranch. This is again an illustration of Jack's very anomalous characteristics.)

The secretary of the agency, on the basis of this and because of her observation of Jack's demonstration of fondness for his family, wrote and stated her query as to whether the boy, so dependent upon family ties, could last in the West, and whether it was advisable to go on with her plans. We replied that probably if he stayed for a time in the West he would get over his homesickness, but that if the boy continued to do extremely well and if his activity could be taken care of and he could be disillusioned about the West, perhaps there would be hope of success at home, especially if some members of his crowd were sent away. But we doubted success on account of his instability.

For the next month Jack stayed at home, working the greater part of the time. Then because of some ridicule by other employees he left his job. Although he did not become involved in any delinquencies he caused much trouble at home through his quarrelsomeness, his unbearable insolence to his father and his constant talking of his anticipated trip West. His parents' one idea now was to get rid of him. By this time two members of his gang had been committed to an industrial school for boys and Jack now spent most of his evenings in a poolroom with his brother, his mother having signed a permit for him. He made fre-

quent trips to the agency to find out how arrangements were progressing.

(His troublesomeness developing at home again so soon after his return was certainly proof of the need for doing something radical—for sending him West, if possible, in spite of doubt about homesickness, etc.

It seems strange that the poolroom should have been the only recourse for recreation. There is a Y. M. C. A. in this town.)

Through correspondence with a juvenile court in Utah, a chance was found for the boy on a farm ranch in that state. Jack's father paid his fare, and Jack started about the first of December. He arrived at his destination, having disposed of one of his suitcases for a revolver, a flashlight, a pipe and some tobacco. He found himself on a hundred and sixty acre farm, twenty miles from a town of any size, in a fertile flat country where ordinary farm products were raised. The place was owned by a German, and the household consisted of himself, his wife, and a grown daughter. Farm labor was difficult to secure, and the farmer wanted a boy largely for the sake of his work, although the court official stated that it was a good home. There were religious observances and prayers at meal times. The boy was not allowed to swear or smoke. The hours were long and the work was strenuous. Jack was at once found to be a good worker, and he was paid somewhat more than had been agreed upon. He was allowed to use a horse to ride for the mail week days and on Sundays he could ride off for the day.

Fairly close touch was kept with the boy through the court officer, who visited him once or twice and received frequent reports. There was some question about the boy's being overworked, but the answer came that it was impossible to keep factory hours on a ranch. Complaint was made of the boy concerning his extreme dirtiness, his bad table manners, and his keeping on his clothes at night. He was said to be very quick tempered, sometimes beating the animals in anger, and sometimes being impertinent to the family. He insisted on carrying a loaded revolver.

(Of course this home offered a change and some adven-

ture for Jack, but there was little selection of a place with the boy's special needs in mind. The work was hard for such an undersized and young boy. There was much grind and little of the romance which Jack craved, although perhaps this was a good antidote to his illusions about the West. Then, one would not have chosen at the war period a German family for a boy partly French, nor one with neither inclination nor patience to train an adolescent. This brings up a point concerning standards of placing. Here is a family, for instance, correctly reported as moral and religious people, who have, nevertheless, little appreciation of the needs of a growing boy. There must have been very much better adjustments possible.)

For long Jack did not write home at all, not even of his safe arrival. When urged to do so he said, "Revenge is sweet." Finally, two months later, he wrote his mother, telling her of his work and complaining of the farmer's German sympathies, saying also that the daughter of the household was a "roughneck." "She always tries to get me blamed."

The probation officer from the nearest juvenile court then visited Jack and concluded that though the boy had been kindly treated in what he considered a decent but hard-working home, still he probably had been overworked. Consequently, he made a readjustment; he obtained temporary work for the boy in a nearby town thinning beets at twenty-five dollars a month and board. Arrangements were made for him to room with his employer at the hotel in town. The probation officer wrote that he liked the boy very much and found him affectionate and interesting. He tried to persuade Jack to save his money and urged him to write regularly to his people.

(It must be stated that even in his first home Jack was much of a success. He was honest; he did not run away or shirk work. His attitude toward his family was perhaps a normal and temporary adolescent reaction in view of the last troublesome days at home. His fears he must have largely overcome.)

The boy got along well with his boss, but within a month the probation officer had secured work which he thought

was more suitable for Jack, inasmuch as he thought it offered more opportunity for rough adventure. A man in the transportation business, who had received some education and was interested in boys, agreed to take charge of Jack and give the companionship he needed. The probation officer wrote, "This man is stronger and quicker with his fists than even Jack, and when he says, 'Wash up!' I notice that Jack washes." Jack took hold of his new work of trucking over the mountain passes with much zeal, and he seemed to appreciate the efforts of the men who were trying to be his friends. When he came in from his trips he lived in a rooming house, but he was always so tired by the time he got there that the probation officer found there was no danger from possible bad associates. The officer wrote that the boy was doing very well but that his attitude toward his family was still antagonistic. At this time he also said that Jack was foolish about his expenditure of money; he had bought a watch and a gun. About the latter Jack said that he wanted to get into the navy some day, but how could he unless he could shoot. The officer also wrote, "Jack is industrious and honest, a nice, likeable kid who knows the value of keeping straight."

(This trucking under the supervision of an especially vigorous young man was an ideal occupation for Jack, offering just the rough adventure and out-of-door work that he wanted. We hardly see anything foolish about the purchase of a watch and a gun. We note that Jack, although so gregarious, manages very well to get along without a crowd of companions.)

After a time Jack was anxious to go on a big cattle ranch in New Mexico that he heard of, but both the probation officer and the employer felt that it was unwise for him to do so. When the summer was over the employer wrote to the family that he did not have enough work for the boy from then on and asked for instructions as to what to do with him. Jack was anxious to get home, because his mother was sickly. The father refusing to advance the money for Jack to come home, the agency at Y. sent on the money for his fare. When he arrived, after his six months' absence, the family and the agency secretary were much

impressed with his physical and mental improvement. He had grown several inches taller; he spoke well of his employers in the West, and his attitude toward his family was respectful and affectionate. His enuresis had ceased.

Jack immediately secured work in the mill and he began making weekly payments towards the ninety dollars which had been advanced for his return. He lived up to his agreement to pay back the entire sum and made an effort to be considerate of his mother. The father was home only week ends at this time. The old gang leader had been released from the institution at this time, but it is not known whether the two boys met. Certainly they got into no more trouble together. Jack was continually urging his whole family to move West.

(The return home was a real test of what the West had done for Jack. The fact that he did not go back to delinquency and the old gang life, even though the other fellows were around, proved what he had gained in the way of moral stability. And the cessation of his enuresis bespeaks powers of self-control.)

In the early winter he had an operation for some growth in his nose which was very painful. His mother died just after this and her death made a great impression upon the boy, as she had told him previously that she could never rest if he did not behave himself. A little later Jack had to be operated on for appendicitis. It is noted that he made friends quickly in the ward at the hospital and he took great pleasure in writing stories of his adventures in the West, passing the stories around for the other patients to read. He still spent much of his time reading cowboy and detective stories of the most lurid kind. After convalescence he secured another job in a mill. He became interested in boxing. He attended church regularly.

(It is of some interest to note that in spite of change of some of his characteristics and increased maturity, Jack still is influenced through his superstitions, and his interest in the cowboys of the West persists.)

In the spring he suddenly left Y, making his way to the Pacific Northwest. For a time he worked on a farm, but soon beat his way back to the Lake Superior region

where he obtained employment on a boat for a time. Crossing the border, he was refused admission to the United States because he had no proof of citizenship. His own story is that a short time later he was one night across the river from Detroit and had just ten cents for the ferry trip. He waited for the last boat and, once in Detroit, crawled along the wharves and, unobserved, made his way safely into the United States. Encountering a recruiting officer Jack asked him if all the soldiers in the army were as fat as he was; if so he wanted to join, but he wanted "a feed" first. The officer bought him a good supper and the boy enlisted.

Jack frequently wrote friendly letters to the agency secretary telling of his success and of his good training. It seems that he was assigned to an army school in New Mexico and there received training as a mechanic. He passed his final test with a very good record and received an honorable discharge after his term of enlistment was up. A letter from Jack during this period runs as follows:

Dear Miss L.:

I am in the best of health and hope you are the same. I received your Easter present and, I thank you a thousand times, I passed the Fuel Room with an average of 84% and it is very good, I am in the Shop Room and like the work very well. But we are feed very poorly. I think Uncle Sam must have forgot this Camp. But, I don't mind it very much for I am learning a Good trade. Many boys are being shipped back for their own organization on account of poor feed. But My Mother stuck through thick and thin, and, I think, I take after Her, I will also stick through thick and thin, Do you remember our Boston trip, I do and will never forget it. I will close wishing you are in the best of health, full of life and vigor.

From your friend,

Jack Long.

P. S. Wish you Success in your Work, Good-bye, Good luck. Thanks very much for the Present Please excuse my Writing, Bum Pen, Please Answer, Good-bye, Good-luck.

Jack returned east to Y for a time in 1922 and readily obtained well paying work. He began taking pride in his personal appearance, indeed became somewhat of a dandy

about his clothes. But the sister with whom he lived found him moody and rather trying. She says that he was absolutely honest and had no bad habits. At times he was affectionate, but he brooded about his mother and would cry when thinking about her. (He showed no interest in girls or women.) His employer said he did not have a more intelligent worker.

Then Jack was laid off because of lack of work. He had a notion that he might get into trouble again if he remained idle in Y and suddenly left for the West. Not having sufficient funds he beat his way a large share of the distance, he was arrested eleven times for vagrancy on account of being on freight trains, he later wrote, but each time after telling the judge that he was on his way to seek work and after showing his honorable discharge from the service he was released. He finally made his way to the little town in Utah where he secured employment with the same transportation company. The following is a letter to the agency visitor received soon after his arrival.

My dear Miss L.:

I am in the best of health and hope you are the same. I received your letter of May 3 and was very glad to hear from you. . . . There is no organization of any kind here in this place. The people are awful stuck up and they don't care to associate with each other they are to independent. . . . I saved a little money every week, and after I finish paying my brother his 25.00 twenty five dollars, I will put money in the bank every week, my Mother always did like you, and I like you to for you have save me from reform school and kept me from staining my family name. Seeing my father does not care to write me or take any interest in any of us I'll have to adopt you to be my Mother, the sweetest name in the world, that is if you do not mind, for I know if my Mother was living would not mind for she loved you, as she would her own daughter. I thank you for the birthday card for I know I have at least one true friend in this World, that I can depend on. . . . I thank you a thousand times for taking interest in me, and I hope you will always trust me as you have in the past. . . .

Love and kisses. A million kisses for you.

From your best Friend,

Jack Long.

Please excuse my writing for I have a bum pen, will buy a new one and then write a better letter. Good-bye, Good-luck.

(However much or little criticism there may be of the exact adjustments that were made in Jack's behalf and of the fact that no continuing plan for his future was ever formulated, still it seems clear that on the whole he profited greatly by the opportunity that was found for him to realize in some measure his very strongly expressed desire for western life. There can be little doubt that he succeeded much better than could have been expected had he remained in his own home or nearby, where there was always the pull of his home to disturb him. Nor can we believe that the régime of an institution, with its lack of facility for giving expression to his need for activity and adventure, would have helped him.)

While we do not know as much about the development of Jack's personality characteristics as we would like to know, particularly concerning his contradictory traits and his temper, and about his present philosophy of life, at least we have very good evidence that his delinquent tendencies have ceased and that the prognosis in this respect now seems thoroughly good.

This case cannot be concluded without paying high tribute to the agency which not only took such a great amount of trouble in the beginning but whose friendliness and thought for this boy have at all times proved such a steadying influence upon him.

FINAL COMMENT

The sport motive in delinquency or crime is what this case primarily represents. And sport, of course, usually is best obtained in company with one's fellows.

It takes a peculiar personality make-up to enjoy the excitement of such a dangerous pastime as burglary, and in Jack's case that is just what there was at bottom. His hyperactivity; genuine love of excitement; childish, poorly inhibited emotionalism; his bravery coupled with superstitious fears; his feeling for certain crude loyalties, such as to his crowd, are exactly those qualities that form the basis

of the beginnings and the continuance of many a criminal career of the most active kind; that of the burglar, the hold-up man, the train robber and the desperado of the West.

But it must also be recorded that frequently what is done by way of treatment under the law, particularly the incarceration of this type of fellow with other offenders, throwing him into a situation and companionship that act like a mordant in fixing the color of his character, and then labeling him so that his social rehabilitation is rendered difficult, has also been a big factor in many cases in bringing about the undesirable result, a criminal career.

There are other ways that give more promise of saving the situation for the individual and for society, particularly through those adjustments for the young individual which offer in normal ways the activities that he is suited for and craves.

Concerning the treatment of this boy as a possible psychopathic case, one that showed very concretely some of the problems of mental hygiene, we may say that what was done in the way of meeting his specific needs represented a program of great therapeutic worth. A fine bit of preventive work seems to have been done.

The solution of this case took courage and patience and good service on the part of those who worked for the boy. But it paid.

REFLECTION AND COMMENT

BY GARDNER MURPHY

Much of the literature of modern mental hygiene is reminiscent of a classic remark of Gerald Stanley Lee's. The true title of any book, he suggested, should be "How to Be More Like Me."

I know a psychiatrist who, with the best will in the world, tries to make his patients more like himself. When he gets mentally fagged, for example, he cultivates a hobby, an avocation; naturally enough he tells a patient who has been overworking that *he* should cultivate a hobby. I know another who finds that biography is good relaxation for him; the patient is therefore told to read biography. These are more gross and obvious instances, from which many psychiatrists are of course completely free. In subtler ways, however, it is almost impossible to avoid the temptation to shape the patient into the mold of one's own best or most efficient self. This may go so far as attempting to give the patient the psychiatrist's own system of values; or as it is frankly stated by two well-known psychiatrists, to give the patient a philosophy of life. That the psychiatrist (or consulting psychologist or vocational guide) must do so in many cases is undeniable, and the parent is of course daily at work giving the child a philosophy of life, whether he wishes to or not. It is evident, however, that there is always pressure for conformity, often the picturing of a smooth easy-rolling conformist existence as the pinnacle and capstone of mental health. Even if we agree that all existence should be balanced and serene, we know altogether too little about the meaning of life to try to fit people to a given norm. A moment's reflection will convince the reader that thousands of different kinds of personalities making thousands of radically different kinds of life ad-

justments are to-day enjoying life in a thousand different ways.

It is without dogmatism, therefore, that I venture to set down here a few tentative hints regarding individual and social mental health.

First we may consider the usefulness of four distinct methods of viewing mental abnormalities.

If you see a lame motor car, gasping along a rocky road, you may, according to your mood, make any one of four kinds of comments on it. "Why didn't Joe buy a *good* car? That machine of his can't help going wrong." Or if you happen to know what particular symptom constitutes the car's present complaint, you may say: "Now if he'd only pay more attention to his spark plugs he'd have no more trouble." Or third, you may know that this immediate trouble is nothing but the end result of years of bad treatment. "Of course he has trouble; he never took care of the car; the trouble goes away back to the first day he drove it." If you are in a particularly generous mood towards Joe, you may be content to remark that no car could navigate on a rock pile, and wonder why the county doesn't help the state to pay for decent roads.

If you make the first of these remarks you are taking the position of a large school of psychiatrists, for whom heredity is the chief explanation for bad navigation through life. Once in existence, the machine never had a real chance. The second remark is that of the psychiatrist or psychologist who is interested in precipitating causes. The third is in general the viewpoint of most psychoanalysts and of a great many other psychiatrists and psychologists: adult maladjustments go back to whole life-histories of faulty adjustment. The fourth remark, though it does not really contradict any of the other three, reflects a viewpoint in which the important thing is to clear away the external obstacles that confront the machine as it is now.

The compiler of these selections on abnormal psychology finds himself quite unwilling to "defend" any of these views against the others; he sees no reason why society should be reluctant to do its utmost in the study and application of principles of all four types. For the practical

worker, specialization based on the division of labor is necessary; for the student, the utilization of *every possible* approach which may give insight into possible causes of mental disorder seems imperative. The most constructive kind of psychiatry, it seems to me, is reflected in these remarkable words of Strecker and Ebaugh:

It is recommended that the student postpone final judgment in the general evaluation of the symptoms in the individual patient. What might be spoken of as a neurotic make-up—a neurasthenic, hysterical, or psychasthenic trend—is not difficult to recognize and with it comes the temptation to generalize in the conception of the patient. Such generalization gives certain loose indications for treatment, but this kind of treatment is always slip-shod psychiatry, and not infrequently it is dangerous. There is a reason and a mechanism for every symptom and sign and the reason and mechanism is to be found in the patient and his history and not in any theory, however profound the theory may be. Just as any phenomenon of hysteria, or of anæsthesia, or of psychasthenia, such as a phobia of high places, or of neurasthenia, such as a selective fatigue, is not to be dismissed until it has been traced to its possible psychologic source, so also must it not be assumed that the only possible explanation is a psychological one. It is little short of criminal to assume because the patient has a neurotic attitude, that, necessarily, his body is sound. In the first place, there are numerous instances in which the somatic factor is strikingly important and even where it occupies a subsidiary position, it may still call for energetic treatment . . . It is *not* a question as to what degree these pathological conditions were instrumental in producing a neurosis or even whether they were influential at all. Such morbidity is to be found on careful examination, and, *therefore, careful examination becomes a matter, not of belief but of conscience and medical ethics.* Adherence to any particular doctrine does not remove the responsibility for determining the actual physical status of the patient. The only effective knowledge is the kind of knowledge that is derived from a thorough analysis of the patient, his symptoms, his history, and his setting in life—a psychologic analysis—a physical analysis, and an environmental analysis. There is no royal road nor are there any short cuts to a proper understanding of the neuroses.

But the problem of preventing mental abnormality is a social problem, and the psychiatrist needs the support of an informed and vigorous public opinion. A clear case is the ordinary or simple type of mental deficiency, in which not only the defect in intelligence, but even the degree of the defect appears to be determined by the germ-cells of the parents. Notwithstanding the "optimistic" remark that we need some mental defectives in our social structure, the appalling social waste due to the difficulty of educating mental defectives and the sheer fact that most of them are both directly and indirectly a burden upon their families and a potential menace to their communities makes their possible positive value to society seem in proportion very small indeed. Discussion of this point quickly liberates a host of powerful emotions. Many who feel themselves to be humanitarians rise in their wrath proclaiming the "Right" of the feeble-minded to reproduce their kind. One of the first duties of the psychologist to the public is to encourage research upon the relation of mental defect to heredity and to make known the definite results already obtained. Public opinion will, of course, continue to resist, because the whole problem of sex and reproduction is regarded on the one hand as too sacred, on the other as too unclean, for discussion. Nothing but the appalling fact that undesirable stock is actually increasing at a menacing rate is likely to break down the barriers to open discussion.

The case is nearly as clear with regard to epilepsy,—I refer here to "essential epilepsy" appearing in the absence of demonstrable brain disease. An *absolute* rule cannot be laid down with regard to the procreation of such individuals, because such an individual may occasionally be a person of such extraordinary intellectual or artistic powers that his children may actually be needed by society despite the taint. This is especially the case if he marries into a perfectly normal stock,—though even in this case the taint may appear after few or after many generations. These exceptional cases are, moreover, almost negligible in the total. The vast majority of epileptics continue their kind, generation after generation. Society pays the enormous

social and moral cost and frowns upon discussion which might lead to intelligent grappling with the problem.

A number of mental disorders, including some of the most common, still baffle the student of the causes of maladjustment. Bad heredity is found with great frequency, and some authorities emphasize heredity throughout. Two difficulties, however, prevent any definite assignation of heredity as a cause. First, we lack what experimental scientists call a control group; we do not know how much bad heredity there would be in strictly comparable cases of normal individuals. Secondly, we still lack clear data as to the degree to which bad heredity, even when significant, may actually *force* the individual into mental disease, and to what extent such heredity merely predisposes him to such a breakdown, by giving him a constitution which is unable to withstand such shocks as others might resist. The two large psychopathic groups designated dementia præcox and manic-depressive psychosis are naturally enough interpreted according to three distinct viewpoints. Some regard both as definitely hereditary; in contrast to this, others regard the shocks and vicissitudes of life, especially of childhood, as the chief causes; a third group strikes a compromise, believing that predisposing heredity plays a part, but that the actual onset of the disorder depends on environmental forces. The evidence for the importance of heredity in the manic-depressive group seems very strong, although occasional individuals possessing the worst imaginable manic-depressive heredity may perhaps be able, through very careful avoiding of precipitating causes, to get through life without a smash. It must be remembered, however, that if heredity is really of prime importance, the mere fact that a given parent avoids the disorder will not guarantee that subsequent generations will do so. The *germ cells* (carriers of heredity) go on perpetuating the psychopathic tendency. Fortunately, most individuals who come of manic-depressive stock can easily acquaint themselves with the family tree in relation to their problem, because the disorder is definite and can rarely be concealed. I feel sure that even rigorous anti-eugenists would, after acquainting themselves with the facts, agree that a person

coming of definitely manic-depressive stock ought not to marry another also of clearly manic-depressive stock.

The problem of heredity in relation to dementia præcox is frightfully complicated. Some investigators regard the "shut-in" personality as the usual forerunner of dementia præcox. But whether the shut-in type of personality depends chiefly upon heredity or upon early environmental factors is hard to determine. It may be that some cases are constitutionally predisposed to such maladjustment, while others are the victims of twists received in early childhood. We can, however, draw two safe conclusions. First, there is no doubt whatever that shut-in personalities are in themselves less happy and less useful than more sociable ones, and that the tendency of children to remain without interest in playmates or activities outside of their own daydreams (especially if they are having sexual conflicts or worries) predisposes not only in some cases to dementia præcox, but to other unhappy and unsocial personalities. Secondly, remembering that the term dementia præcox is both vague and broad, we must keep our minds open to the possibility that various physical factors such as infected teeth or tonsils, glandular insufficiency or imbalance, etc., may in some cases lead to mental disorders coming under that general head. Even, in fact, if such physical causes are not known to be causing *any* trouble, either physiological or mental, at present, they are likely to do so at any time, and the onset of such troubles is usually insidious.

A large number of abnormal personalities who are not definitely insane, but classified as "constitutional psychopaths" show life histories so full of maladjustment that it is quite impossible to say whether heredity or early childhood disturbances play the greater part. It is significant, however, that a large number of such cases, particularly those showing kleptomania, uncontrollable temper, sadistic tendencies, the impulse to wander, etc., have been found through recent careful studies to owe their condition to perfectly definite experience in childhood, particularly to faulty sexual education, lack of confidence between parent and child, feelings of inferiority, and other emotional conflicts.

The vast field of the psychoneuroses or functional nervous complaints, all the way from full-fledged cases of hysteria to the little obsessions and irrational worries which practically all of us have or have had, appear to be chiefly or perhaps entirely traceable to environmental sources. The causes of a large number of these have been traced in Dr. Van Teslaar's *Outline of Psychoanalysis* and in the present volume, and need not be detailed anew.

It may not be true that *every* abnormality is but an exaggeration of what is found in the normal, but it is surely true of most of the common disorders. The recognition of the essential kinship which our own everyday life bears to that of the psychoneurotic and psychotic offers in fact the best augury for the protection of ourselves as individuals, and of society as a whole, from the encroachments of mental disease. For one thing, we shall in time give up the barbarous habit of treating sufferers from mental illness as beings inferior to ourselves. When the stigma attaching to abnormality has been removed, many will dare to seek relief from their inner queernesses who now dread the thought that another human being might know that "awful secret." In the second place the study of the overt forms of mental conflict and maladjustment helps greatly towards dispassionate recognition of one's own leanings, the analysis of one's own twists and foibles. When we can take these for what they are, patiently ferret out where they are leading us, and adjust ourselves to them, our security against mental disease is at its height. Not that we can, by any means, always do this alone. Mental conflicts and suppressions are often of such severity that we cannot ourselves discover their origin. We find ourselves irrationally bitter on some political or religious subject. It is well to spend some time quietly studying reasons we might have for such bitterness. Does our antipathy really arise simply from the conviction that another man's viewpoint is erroneous, or does it perhaps arise from a slight to ourselves? When we explain our conduct to ourselves in terms of a lofty devotion to duty, why do we experience a strange discomfiture upon recognizing that the absence of a tangible

reward would leave us with no such inner-glow of satisfaction? Quiet self-analysis can do much.

If there is one clear principle of mental hygiene which stands out as a result of the psychiatry of the last forty years, it is the value of the Socratic maxim *know thyself.* For into thyself, gentle reader, the world has poured a frenzied multitude of influences, and from thyself come forth an equally complicated bundle of acts, almost all of which will be the happier the better they are understood. But almost equally clear is the principle that we can know ourselves *well* only through the indirect method of sharing ourselves, so to speak, with our friends or families. Introspective study of one's motives, for example, or even of one's prejudices, is often a rather unproductive process even when most conscientiously carried through. On the other hand, the process of taking off our daily masks and trusting our friends—or even our dogs—to show us hour by hour what we really are in terms of their reactions to us may accomplish very extraordinary results. Finding out what we really are is at least one important step towards finding out what we want to make of ourselves.

Now if in this process of self-study we become keenly conscious of worries, conflicts, lack of internal harmony, the chances are that the trouble lies in one fundamentally simple adaptive difficulty which occurs with almost deadening monotony in the life histories of all human beings. I should venture to say that abnormal psychology would lose most of its stock in trade if it had to give up this one commodity. I refer, of coures, to lack of integration in the motives or impulses which control life. Personality seems to the first naïve glance to be a unity, the mystery of which is indeed so profound that it is easy to forget the possibilities which psychological analysis may offer. No personality is *really* a unity. We are all at war with ourselves. The difference between the normal and the abnormal ordinarily lies, I believe, simply in the degree to which the unification or integration of our motives has been affected. Where there is abnormality, look for internal conflicts.

Again we are using "normal" in the sense of a "happily adjusted" life. The point is often made that certain ab-

normalities are the product of civilization. This is true in the sense that our wants become more complicated as our life becomes richer and more varied; and the more complicated the machinery the more room there is for conflicts. Insanity is rare in low-grade mental defectives. True mental derangement is almost never found in animals except when they are drugged, kept without sleep, or subjected to some terrific and prolonged strain. The appearance of abnormality may mean simply that the organism is one which is capable of many wants which have not learned to live together in the same body. This is one of many reasons for the insistence that he who suffers from an "abnormality" should feel no sense of intrinsic and inevitable inferiority to his fellows. We no longer believe that sickness is a proof of sin; but we are only gradually learning that abnormality of mind may be handled in an objective and matter-of-fact spirit, the fundamental humanity of each individual twist being much more obvious and important than the fact that the twist differs from other twists which for practical purposes we call normal.

But where and how do these conflicts between the fundamental motives or wants first arise? They are present at birth. The observer of any infant between birth and two or three years of age will constantly see such signs as these: A child has a habit of brandishing his thumb in the air whenever some one shakes his rattle; he also has the habit of sucking his thumb. One day in the midst of thumb-sucking the rattle is heard. Out comes the thumb immediately and is brandished aloft. But immediately weeping and wailing ensue, for somehow the thumb has been snatched away and it cannot be found. Brandishing and thumb-sucking are two fundamental satisfaction-getters, but the exercise of one undercuts the other. In time the conflict is adjusted by either of two fundamental mechanisms: unification of the two or elimination of one. Learning to brandish with the other thumb illustrates the first type; learning not to suck the thumb illustrates the second. Adult experience can do no more. But adult experience can handle the problem with much less pain than the child usually suffers in learning to handle his conflicts. The adult finds,

ninety percent. of the time, that what has been a conflict and a source of misery can be resolved by patient study of the real mainsprings of the motive, what it is that is *really desired*. To use a case of Holt's, the girl who has been taught that the theater is wicked is invited by some devoted friends to go to the theater with them. A conflict arises because two motives, filial affection and love of entertainment, appear to be in conflict. If, however, the problem is really analyzed carefully, the basis for the parental opposition will be understood and the girl will find whether she really does or does not wish to classify all drama as bad. If analysis is carried one stage further and the real nature of filial affection is understood, it will even be possible to love the parents more deeply while looking upon life through one's own eyes rather than through theirs.

There remain, nevertheless, the ten-percent.—or whatever you like—of instances in which motives are in arrant contradiction, and no more susceptible of unification than gluttony and starvation. Many of these direct conflicts are ordinarily handled by the method of evasion. The Freudian "suppression" is but one type of such evasion. Alternation between the conflicting motives is an equally common way of evading the solution of the problem; here appears, for example, the man who loses his temper every day, and tries to make up for it by giving the cat a double ration of milk in the evening. A large proportion, I believe, of what is called inconsistency in personality arises from conflicting impulses which have never been faced. When one has really decided what one most wishes in life—including, of course, what one wishes for those who are so close as to be "parts of ourselves"—there is no harm in the world in definitely weeding out and eliminating the unruly motive. There seems to be a general impression that such extermination of wishes is dangerous for mental health. On the contrary, such rational and deliberate solving of the conflict is in many ways the best guarantee of mental health. It is only when we run away from the conflict or pretend not to see it that harm results; and harm comes not from the weeding out of the impulse, but from keeping it alive by feeding it daily with the energy of a baffled wish which

we are unwilling to face clearly. Though the technique of mental hygiene be complicated, the basic principle is, I believe, very simple. Decide what you really want, and bend your energies toward it. What you really want is probably not much like the "ruby bush and diamond tree" which feature in your first day-dream after asking yourself the question.

You or some one of your friends may however find the storm of conflict blowing to a gale; any one of us *may* at any time confront a family tragedy or some harrowing situation which will cause at least a temporary mental upset. A few hints as to what to do in a case of mental disorder are therefore offered; and these remarks apply to anything from the recurrence of nightmares to the fear that one is going insane. First of all, unless you are certain that the trouble is purely of mental origin, get a thorough physical examination. I do not mean simply heart and lungs and blood count; I refer to a really careful study of your whole physical machinery. "Nervous breakdowns," worry, etc., are, for example, often the result of infected teeth; do not let the physician carry you around Robin Hood's barn in the search for "complexes" until you have first made sure (by X-rays, vitality tests, etc.) that you have no infected teeth or tonsils. Make sure also that you have no marked glandular imbalance (hyperthyroidism, etc.). Of course, even the most thorough physical examination may reveal nothing physically wrong; but get that assurance first. And if you find something physically wrong, do not assume that it is *necessarily* the cause of the mental trouble. Get the teeth and so forth taken care of; but you may still want the mental factors carefully studied. In fifty or a hundred years psychiatry will probably be able to tell in nearly all cases from the nature of the disorder itself whether physical factors are contributing to it or whether it is purely psychogenic. Except in a small percentage of cases this cannot yet be done.

Now to get real help in straightening out such mental problems is not easy for most people. By all means, try to make contact with some physician who has specialized in mental disorders. To help you, he or she needs, of course,

three cardinal qualities—intelligence, experience, sympathy. In the larger cities you have a choice among numerous psychiatrists. In a small city or in the country you will probably have to rely on your general practitioner. A good general practitioner is, of course, much to be preferred to a cranky or dogmatic psychiatrist. By the way, it is really quite important to ask your psychiatrist early in the treatment regarding the fees; it is particularly unfortunate to have uncertainty and worry about money matters injected into the rather close personal relationships which must of course develop in any long and careful study of individual problems.

A final word about maintaining mental health and about making use of a psychiatrist's help. You may look at the job from the standpoint of patching up a source of annoyance *or* from the standpoint of creating something *new*,—namely, the happiest person you are capable of becoming.

Traditionally the task of the physician has been to heal, and it is only within the past generation that a serious social endeavor has been evident in the direction of preventive medicine. We find ourselves going beyond "public health work" to grapple seriously with the problems of exercise, diet, periodical examinations, and so on, which will make the physician and the dentist essentially guardians rather than repairmen. The same movement is very evident in the field of mental hygiene. We are at last grasping the elementary and obvious fact that mental health can in large measure be guaranteed by careful and intelligent shaping of the *child's* personality so that he may be able to withstand life's tempests.

But just as a physical health program means not merely the avoidance of illness but the attainment of something positive, a robust and joyful physical existence, so the concept of mental health means not merely the avoidance of breakdowns, but the eager acceptance and utilization of every constructive element in the shaping of a vigorous and happy personality. It is here that the trifling and picayune admonitions of a "play safe" policy are apt, through their lack of vision, to miss magnificent opportunities. The child does indeed desperately need protection from warp-

ing influences, but he has just as urgent a need for freedom to develop, to be his most earnest and his happiest self, and to express without interference the interests and urges which mean most to him. Surely modern education has shown in a thousand ways that a child lives best and learns best when he is free from the cramping confinement of the adult's way of learning and acting. It is by no means an easy matter to combine such opportunity for freedom with the need for protection which we just noted above; and harder still to combine these two with the imperative need of saving the child from a reckless individualism in which his wishes will clash throughout his life with the wishes of similar individualists. In short, we are realizing that the jobs of the educator, of the mental hygienist, and of the parent are inextricably interwoven, and that every one of them is a job requiring all the brains and all the experience which can be brought to bear.

GLOSSARY

affect: emotion or feeling
ambivalence: tendency to react in opposite ways to the same stimulus
ament: mental defective
amnesia: defective memory for a particular event
anæsthesia: insensibility to a stimulus which is ordinarily perceived
analgesia: insensibility to pain
anamnesis: psychiatric case-history
anorexia: loss of appetite
aphonia: speechlessness
apperception: perception plus comprehension
autosuggestion: suggestion imposed upon oneself

benign: eventuating in a favorable outcome

cardiopathy: heart disease
catalepsy: unconscious state in which limbs are usually held rigid
catharsis: relief through giving free rein to pent-up emotion
cerebrum: division of the brain containing higher centers for sensation, movement and association
claustrophobia: fear of enclosed spaces
compensation: making up for a defect
contracture: condition in which a muscle cannot be relaxed
cortex (cerebral): surface of cerebrum
cretin: mental defective whose condition is due to deficiency of thyroid secretion
cyanosis: turning blue (through circulatory disorder)
cyclothymia: oscillation of mood

delusion: false belief persisting in spite of direct evidence

endopsychic: within the mind
enteropathy: intestinal disorder
enuresis: involuntary urination (especially bed-wetting)
etiology: causation of disease
exophthalmus: protrusion of eyeballs

flexibilitas cerea: condition in which the limbs remain fixed in whatever position they are placed

gastropathy: stomach disorder
goiter: morbid enlargement of thyroid gland

hallucination: sense-impression without physical stimulus
hyperthyroidism: disease involving oversecretion of the thyroidal gland
hypnagogic: pertaining to the act of falling asleep
hypnoidal: sleep-like
hypnosis: condition of extreme suggestibility with fixation of attention upon person giving suggestions
hypnotism: induction of hypnosis

illusion: mistaken perception
influence, idea of: idea that others are exercising occult influence over one's own mind
insight: patient's recognition that mental disorder exists
involution: decline (opposite of evolution)

malignant: having unfavorable outcome
monoideism: condition in which all of consciousness is filled by one idea

negativism: tendency to resist everything suggested or commanded
neurasthenia: general term for various forms of nervous fatigue, strain or worry
neurogram: brain change serving as basis for memory impression
neurosis: nervous disorder

onanism: masturbation
orientation: keeping one's bearings, *i.e.*, knowing where and who one is, etc.

parietal: pertaining to upper posterior surface of brain
planchette: little tripod with pencil attached, used for automatic writing
posthypnotic: taking effect after hypnotic state is past
prodromal: pertaining to the onset of a disorder
psychogenic: of mental origin
psychoneuroses: types of functional nervous disorder
psychopathology: study of mental disorders
psychoses: types of insanity

reference, ideas of: idea that others are constantly talking about (referring to) patient

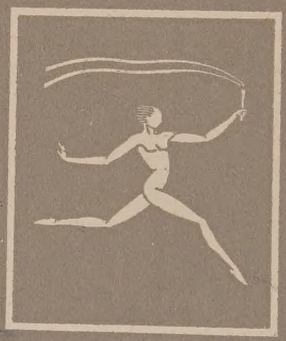
schizophrenia: dementia præcox
sclerosis: hardening
sensorium: part of the mind relating to perception and reasoning

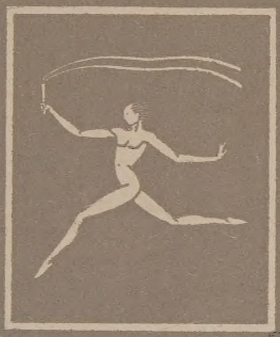
somatic: bodily
somnambulism: sleep-walking, or similar state not remembered when fully awake
spring resistance: condition in which pressure upon limbs causes resistance like that of a spring
stimulus: anything provoking mental or physical reaction
sublimation: satisfaction of an instinct through an indirect means (substitute activity)
subliminal: subconscious
suggestion: uncritical acceptance of an idea or attitude
supraliminal: above the threshold of consciousness; *i.e.*, present in consciousness

tachycardia: rapid pulse
thyroidectomy: operation to remove thyroid tissue
tic: movement involuntarily performed over and over again

vascular: pertaining to the circulatory apparatus

THE END





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